

Draft Title V Operating Permit

Permit No: **TV-0055**
Date Issued: **July 31, 2009**

This certifies that:
Northeast Utilities
Public Service of New Hampshire
780 North Commercial Street
Manchester, NH 03101

has been granted a Title V Operating Permit for the following facility and location:

Public Service of New Hampshire
Merrimack Station
97 River Rd.
Bow, NH 03304-3314

Facility ID No: **3301300026**

ORIS Code: **2364**

Application No: **FY96-TV048**, received on July 1, 1996, Original Title V Operating Permit application

This Title V Operating Permit is hereby issued under the terms and conditions specified in the Title V application referenced above filed with the New Hampshire Department of Environmental Services under the signature of the following responsible official certifying to the best of their knowledge that the statements and information therein are true, accurate and complete.

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This Permit is issued by the New Hampshire Department of Environmental Services, Air Resources Division pursuant to its authority under New Hampshire RSA 125-C, D, J, and O, and in accordance with the provisions of the Code of Federal Regulations, Title 40, Part 70.

This Permit is effective upon issuance and expires on **XXXXXXXXXX YY, 2014**.

Director, Air Resources Division

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ABBREVIATIONS

AAL	Ambient Air Limit
AEL	Alternative Emission Limit
AP-42	Compilation of Air Pollutant Emission Factors
ARD	Air Resources Division
ASTM	American Society for Testing and Materials
ATS	Allowance Tracking System
BACT	Best Available Control Technology
BHP (or bhp)	Brake Horse Power
BTU	British Thermal Units
CAA	Clean Air Act, 42 U.S.C. § 7401, et seq.
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstracts Service
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CNG	Compressed Natural Gas
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
COMS	Continuous Opacity Monitoring System
DER	Discrete Emission Reduction
Env-A	New Hampshire Code of Administrative Rules – Air Resources Division
Env-Wm	New Hampshire Code of Administrative Rules – Waste Management Division
ECS	Emission Control System
ERC	Emission Reduction Credit
ETS	Emissions Tracking System
FR	Federal Register
gal/hr	Gallons per hour
HAP	Hazardous Air Pollutant
HHV	High Heat Value
HCl	Hydrochloric acid
hr	Hour
kscfm	1,000 standard cubic feet per minute
kGal	1,000 gallons
KVDC	Kilovolt Direct Current
KW	Kilowatt
LAER	Lowest Achievable Emission Rate
lb/hr	Pounds per hour
LNB	Low NO _x Burner
LNG	Liquid Natural Gas
LPG	Liquid Petroleum Gas (Propane)
MACT	Maximum Achievable Control Technology
mg/L	Milligrams per liter
mmBtu	Million British Thermal Units
MMCF	Million Cubic Feet
MW	Megawatt
NAAQS	National Ambient Air Quality Standard

ABBREVIATIONS (cont.)

NATS	NO _x Allowance Tracking System
NESHAPs	National Emissions Standards for Hazardous Air Pollutants
NG	Natural Gas
NHDES (or DES)	New Hampshire Department of Environmental Services
NMOC	Non-Methane Organic Compound
NO _x	Oxides of Nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PCB	Polychlorinated biphenyls
PE	Potential Emission
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 microns diameter
ppm	part per million
ppm _{dv}	part per million by dry volume
PSD	Prevention of Significant Deterioration
PSI	Pounds per Square Inch
PTE	Potential to Emit
PUC	Public Utilities Commission
RACT	Reasonably Available Control Technology
RTAP	Regulated Toxic Air Pollutant
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
T-12M	Tons during any consecutive 12-month period
TAP	Toxic Air Pollutant
TSP	Total Suspended Particulate Matter
TPY	Tons per Year
USEPA	United States Environmental Protection Agency
VER	Voluntary Emission Reduction
VOC	Volatile Organic Compound

Facility Specific Title V Operating Permit Conditions

I. Facility Description of Operations

PSNH - Merrimack Station is a fossil fuel-fired electricity generating facility, owned and operated by Public Service of New Hampshire (PSNH), a subsidiary of Northeast Utilities. The facility is comprised of two utility boilers, two combustion turbines operating as load shaving units, an emergency generator, an emergency boiler, and coal handling systems including primary and secondary coal crushers, coal piles, coal conveyor systems, and coal unloading from railcars. The facility operations also include various activities that are classified as insignificant or exempt activities.

The two utility boilers (MK1 and MK2) primarily burn bituminous coal; the two combustion turbines primarily burn No. 1 fuel oil or JP-4; the emergency generator burns No. 2 fuel oil or diesel fuel, and the emergency boiler burns No. 2 fuel oil or low sulfur diesel fuel. PSNH – Merrimack Station ignites the two utility boilers with No. 2 fuel oil.

Each utility boiler stack is equipped with continuous emissions monitoring systems (CEMS) and a continuous opacity monitoring system (COMS). PSNH – Merrimack Station emits NO_x, SO₂, CO, VOCs, PM, CO₂, RTAPs, and HAPs. PSNH – Merrimack Station has installed control equipment and implemented operational changes to reduce emissions, including selective catalytic reduction (SCR) systems to control NO_x emissions, and electrostatic precipitators (ESP) to control PM emissions.

PSNH – Merrimack Station operates a fly ash re-injection system in each of the two Boilers.

II. Permitted Activities

In accordance with all of the applicable requirements identified in this permit, the Permittee is authorized to operate the devices and or processes identified in Sections III, IV, V and VI within the terms and conditions specified in this Permit.

III. Significant Activities Identification and Stack Criteria

A. Significant Activity Identification

The activities identified in the following table (Table 1) are subject to and regulated by this Title V Operating Permit:

Table 1 Significant Activity Identification

Emission Unit Number	Description of Emission Unit	Maximum Gross Heat Input Rate or Maximum Power Output	Maximum Operating Conditions
MK1	Steam Generating Unit 1 (Installed in 1960) Front wall firing	Bituminous Coal: 1,238 mmBtu/hr	A) Maximum fuel consumption rate of bituminous coal shall be limited to 48.5 tons/hr, not to exceed 425,289 tons during any consecutive 12-month period ¹ B) No. 2 fuel oil consumption shall not exceed 14.5 million gallons during any consecutive 12 month period.
MK2	Steam Generating Unit 2 (Installed in 1968) Opposed wall firing	Bituminous Coal: 3,473 mmBtu/hr	A) Maximum fuel consumption rate of bituminous coal shall be limited to 136.2 tons/hr, not to exceed 1,193,078 tons during any consecutive 12-month period ² . B) No. 2 fuel oil consumption shall not exceed 14.5 million gallons during any consecutive 12 month period.
MKCT1	Combustion Turbine #1 (Installed in 1968) One-end only firing	No. 1 fuel oil or JP-4: 319 mmBtu/hr	Maximum fuel consumption rate shall not exceed 2,279 gal/hr ³ .
MKCT2	Combustion Turbine #2 (Installed in 1969) One-end only firing	No. 1 fuel oil or JP-4: 319 mmBtu/hr	Maximum fuel consumption rate shall not exceed 2,279 gal/hr ⁴ .
MKPCC	Primary Coal Crusher (Installed in 1960)	NA	Maximum operating rate of the Primary Coal Crusher shall be limited to 885 ton/hr coal.
MKSCC	Secondary Coal Crusher (Installed in 1960)	NA	Maximum operating rate of the Secondary Coal Crusher shall be limited to 690 ton/hr coal.

¹ The heating value of bituminous coal is assumed to be 12,750 Btu/lb. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

² The heating value of bituminous coal is assumed to be 12,750 Btu/lb. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

³ The heating value of JP-4 and No. 1 fuel oil is assumed to be 140,000 Btu/gal. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

⁴ The heating value of JP-4 and No. 1 fuel oil is assumed to be 140,000 Btu/gal. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

Table 1 Significant Activity Identification			
Emission Unit Number	Description of Emission Unit	Maximum Gross Heat Input Rate or Maximum Power Output	Maximum Operating Conditions
MKEG	Emergency Generator (Installed in 1988)	Diesel fuel or No. 2 fuel oil: 3.93 mmBtu/hr	A) Maximum fuel consumption rate of diesel fuel shall not exceed 28.7 gal/hr. ⁵ B) Maximum fuel consumption rate of No. 2 fuel oil shall not exceed 28.1 gal/hr. ⁶
MKEB	Emergency Boiler (Temporary – Each installation)	No. 2 fuel oil (with a maximum sulfur content of 0.4% by weight), or on-road low sulfur diesel oil (with a maximum sulfur content of 0.05% by weight): 96 mmBtu/hr	A) Maximum fuel consumption rate of No. 2 fuel oil shall not exceed 520 gal/hr and 11,760 gal/day ⁷ ; or B) Maximum fuel consumption rate of on-road low sulfur diesel oil shall not exceed 701 gal/hr

B. Stack Criteria

- A. The following devices at the Facility shall have exhaust stacks that discharge vertically, without obstruction, and meet the criteria in Table 2:

Table 2 – Stack Criteria				
Stack Number	Emission Unit Number	Emission Unit Description	Minimum Stack Height (Feet) Above Ground Level	Maximum Inside Stack Diameter (Feet)
STMK1	MK1	Steam Generating Unit No. 1	225	8.6
STMK2	MK2	Steam Generating Unit No. 2	317	14.5
STMKCT1	MKCT1	Combustion Turbine #1	20	10.5 x 14
STMKCT2	MKCT2	Combustion Turbine #2	20	10.5 x 14
STMKEG	MKEG	Emergency Generator	12	0.5
STMKEB	MKEB	Emergency Boiler	22.33	4.0

- B. Stack criteria described in Table 2 may be changed without prior approval from the Division provided that:
1. An air quality impact analysis is performed either by the facility or the Division (if

⁵ The heating value of the fuel is assumed to be 137,000 Btu/gal. The fuel consumption limits vary based on the actual heat content of the fuel burned.

⁶ The heating value of No. 2 fuel oil is assumed to be 140,000 Btu/gal. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

⁷ The heating value of No. 2 fuel oil is assumed to be 140,000 Btu/gal. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

- requested by the facility in writing) in accordance with Env-A 606, Air Pollution Dispersion Modeling Impact Analysis Requirements, and the “Guidance and Procedure for Performing Air Quality Impact Modeling in New Hampshire,” and
2. The analysis demonstrates that emissions from the modified stack will continue to comply with all applicable emission limitations and ambient air limits.
- C. All air modeling data and analyses shall be kept on file at the facility for review by the Division upon request.
 - D. The Owner or Operator shall provide written notification to the Division of the stack change within 15 days after making the change. Such notification shall include:
 1. A description of the change; and
 2. The date on which the change occurred.

IV. **Insignificant Activities Identification**

All activities at this facility that meet the criteria identified in Env-A 609.04(d), shall be considered insignificant activities. Emissions from the insignificant activities shall be included in the total facility emissions for the emission-based fee calculation described in Section XXIII. of this Permit.

V. **Exempt Activities Identification**

All activities identified in Env-A 609.03(c) shall be considered exempt activities and shall not be included in the total facility emissions for the emission based fee calculation described in Section XXIII of this permit.

VI. **Pollution Control Equipment/Method Identification**

The devices and/or processes identified in Table 3 are considered pollution control equipment or techniques for each identified emissions unit:

Table 3 – Pollution Control Equipment/Method Identification		
Pollution Control Equipment Number	Description of Equipment/Method	Emission Unit Number
MK1-PC1	Electrostatic Precipitator (ESP) #1 on MK1	MK1
MK1-PC2	ESP #2 on MK1	MK1
MK1-PC3	Selective Catalytic Reduction (SCR) System	MK1
MK2-PC4	ESP #1 on MK2	MK2
MK2-PC5	ESP #2 on MK2	MK2
MK2-PC6	SCR System	MK2

VII. Alternative Operating Scenarios

While operating under an alternative operating scenario, the Permittee shall comply with all applicable requirements specified in this permit, including but not limited to, state and federal operational and emission limitations specified in Section VIII.A and H, monitoring, and testing requirements specified in Section VIII. I, recordkeeping requirements specified in Section VIII. J and reporting requirements specified in Section VIII.K. Pursuant to 40 CFR 70.6 (a)(9), the Permittee shall keep all applicable records pertaining to the alternative operating scenario during such operation. The Permittee shall keep a record of the scenario under which it is operating.

A. Trial Test Burns with Other Fuels (Temporary Permits FP-T-0054 & TP-B-0462)

Prior to the use of any fuel other than bituminous coal, No. 2 fuel oil or other fuels previously reviewed and approved by DES, PSNH – Merrimack Station shall submit a proposal to DES, which shall include, but not be limited to the following:

1. Type of fuel;
2. Analysis data of the fuel proposed, which shall include proximate and ultimate analysis, volatile and semi-volatile analyses (i.e., EPA Method 8240, 8250, 8260, or 8270) and metals analysis (i.e., Method 3050 and mercury).
3. Specification of baseline operating conditions at PSNH - Merrimack Station including coal feed rate, percent moisture of coal feed, oil firing rate, ESP and SCR operating conditions, and emissions values of SO₂, NO_x, particulate matter (TSP and PM₁₀, if available), CO (if available), and opacity;
4. A comprehensive test plan, which shall present the proposed operating conditions for the trial burn, to include but not be limited to the following:
 - a) Length of fuel trial;
 - b) New fuel rate;
 - c) Means of measuring new fuel feed rate;
 - d) Description of new fuel feed process;
 - e) New fuel preparations prior to burning;
 - f) Percent moisture of new fuel feed;
 - g) Time table for operation stability;
 - h) Coal feed rate;
 - i) Coal percent moisture;

- j) ESP and SCR operating conditions;
 - k) Expected emission values of opacity, SO₂, NO_x, particulate matter (TSP and PM₁₀, if available), and CO;
 - l) The test plan shall also address the continuous tracking or operational data prior to the fuel trial, during the fuel trial, and for a short time after the fuel trial. SO₂, NO_x, and opacity can be monitored using the existing CEMs.
 - m) A compliance stack test protocol for TSP emissions using US EPA Methods 1 through 4, Method 5, Method 17, or a DES approved alternative, when requested by DES.
 - n) Operational parameters to be monitored and recorded, which shall include, but not be limited to steam flows, boiler temperatures, ammonia flow, and oxygen;
 - o) The effects of the new fuel on flyash characteristics and resulting effect on the ESP and SCR operations;
 - p) The effects of the new fuel on bottom ash characteristics;
 - q) Specification and description of expected operational and combustion conditions when the trial burn has reached stable conditions with the new fuel feed; and
 - r) A timetable or schedule with approximate dates of the trial test burn.
5. Based on information regarding the proposed trial fuel burn provided by PSNH – Merrimack Station, the DES may request additional specific information on the proposed trial burn operations. In addition, metal emission stack testing may be required dependent upon DES review of the new fuel metal analysis.
 6. If the new fuel is to be consumed on a regular basis, PSNH – Merrimack Station shall apply for a Temporary Permit or apply for an amendment to this Title V Operating Permit, as determined by DES. If the new fuel results in a major modification, NSR or PSD program requirements may apply, as well as a public notice, and comment period.
 7. DES shall respond within 30 days of receipt of a proposal with approval, conditional approval, denial, or request for additional information.
 8. DES Waste Management Division may have additional requirements and concerns and shall be contacted by PSNH – Merrimack Station prior to the initiation of any trial burn, if applicable.
 9. A summary report shall be submitted to DES within 30 days after the end of the trial fuel burn, which should include a summary of operational results and trends, emission values to include CEM and stack test data, and proposed future use of the trial fuel.

B. Fly Ash Re-injection (Temporary Permit Nos. FP-T-0054, TP-B-0462):

Fly ash has historically been, and is currently re-injected at PSNH – Merrimack Station as part of normal operation. As necessary, based on operational and/or technical drivers, including available options for storage and beneficial reuse, PSNH – Merrimack Station is authorized to cease fly ash re-injection, as an alternative operating scenario.

C. Early Mercury Emission Reduction Methods (RSA 125-O:13):

Prior to July 1, 2013, PSNH is authorized to test and implement mercury reduction control technologies or methods, including sorbent injection, to achieve early reductions in mercury emissions below the baseline mercury emissions, as an alternative operating scenario. Prior to any testing, PSNH shall submit a trial plan to DES for review and approval. The plan must contain, at a minimum, the following information:

1. Description of the early mercury emission reduction control methodology.
2. Expected values of mercury, SO₂, and TSP emissions, and opacity.
3. Compliance stack test protocol in accordance with Env-A 800 for TSP emissions testing using Method 1 through 4, Method 5, or a DES approved alternative or other pollutant testing, when requested by DES. If this testing is also to demonstrate the effectiveness of the mercury reduction method and amount of reduction, then compliance testing for mercury shall be conducted using a DES approved method.
4. The effects of the methodology on fly ash characteristics, bottom ash characteristics, and ESP operation.
5. Based on information regarding the proposed trial mercury emission reduction methodology, DES may request additional specific information on the proposed methodology.
6. If the new methodology is to be used on a regular basis, PSNH must submit the necessary information for a permit application, as applicable.
7. A summary report shall be submitted to DES within 60 days after stack testing is completed. The report shall include a summary of operational results and trends, emissions values including CEM, COM, and stack test data, and proposed future use of the methodology.

VIII. Applicable Requirements**A. State-only Enforceable Operational and Emission Limitations**

The Permittee shall be subject to the state-only operational and emission limitations identified in Table 4 below.

Table 4 – State-Only Enforceable Operational and Emission Limitations

Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
1.	Env-A 1403	All devices subject to RSA 125-I and Env-A 1400	All devices or processes, subject to RSA 125-I and Env-A 1400, shall comply with Env-A 1400 (<i>Regulated Toxic Air Pollutants</i>).
2.	Env-A 1403.01(d)	All devices subject to RSA 125-I and Env-A 1400	Documentation for the demonstration of compliance shall be retained at the facility and shall be made available to DES for inspection upon request.
3.	Env-A 1404.01	All devices subject to RSA 125-I and Env-A 1400	A) The owner of a new or modified device or process requiring a permit under this chapter shall submit an application for a temporary permit in accordance with Env-A 607.03. B) Pursuant to RSA 125-I:5,I, the owner shall not operate the device or process until a temporary permit is issued.
4.	Env-A 1405.01	All devices subject to RSA 125-I and Env-A 1400	The owner of any device or process that emits an RTAP shall determine compliance with the AAL by using one of the methods provided in Env-A 1405. Upon request, the owner of any device or process that emits an RTAP shall provide documentation of compliance with the AAL to DES.
5.	Env-A 1405.02	MK1 & MK2	Ammonia slip stream emissions from the SCR units shall not exceed 10 ppm _{dv} at 3% oxygen (dry basis), as measured at the stack outlet.
6.	Env-A 1002.04 Fugitive Dust	Facility wide	The Permittee shall prevent, abate, and control fugitive dust emissions, including fugitive coal dust using best management practices. ⁸
7.	RSA 125-O:13,I. Compliance	MK1 & MK2	The owner shall install and have operational scrubber technology to control mercury emissions at Merrimack Units 1 and 2 no later than July 1, 2013.
8.	RSA 125-O:13,II. Compliance	Affected sources as defined in RSA 125-O:12, namely MK1, MK2, SR4, & SR6	Beginning on July 1, 2013, total mercury emissions from the affected sources shall be at least 80 percent less on an annual basis than the baseline mercury input, as defined in RSA 125-O:12,III.
9.	RSA 125-O:13,III. Compliance	MK1 & MK2	Prior to July 1, 2013, the owner shall test and implement, as practicable, mercury reduction control technologies or methods to achieve early reductions in mercury emissions below the baseline mercury emissions. The owner shall report the results of any testing to the DES and shall submit a plan for DES approval before commencing implementation of mercury reduction control technologies or methods.

⁸ To comply with this provision, PSNH – Merrimack Station shall use Best Management Practices to manage and minimize fugitive coal dust. See the Best Management Practice policies established in the PSNH Generation Environmental Management System Plan for Fugitive Plant Emissions.

Table 4 – State-Only Enforceable Operational and Emission Limitations			
Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
10.	RSA 125-O:13,V. Compliance	MK1 & MK2	Mercury reductions (achieved by the scrubber technology) that are greater than 80 percent, shall be sustained in so far as the proven operational capability of the system, as installed allows. DES in consultation with the owner shall determine the maximum sustainable rate of mercury emission reductions for each of the boilers and incorporate such emission reductions rate as a permit condition of operational permits issued by DES for units MK1 & MK2.
11.	RSA 125-O:13,VI. Compliance	MK1 & MK2	The purchase of mercury emissions allowances or credits from any established emissions allowance or credit program shall not be allowed for compliance with the mercury reduction requirements of RSA 125-O:16,II.
12.	RSA 125-O:13,VII. Compliance	MK1 & MK2	If the mercury reduction requirement of RSA 125-O:13,II. is not achieved in any year after the July 1, 2013 implementation date, and after full operation of the scrubber technology, then the owner may utilize early emissions reduction credits or over-compliance credits, or both, to make up any shortfall, and thereby be in compliance.
13.	RSA 125-O:13,VIII. Compliance	MK1 & MK2	If the mercury reduction requirement of RSA 125-O:13,II. is not achieved in any year after the July 1, 2013 implementation date despite the owner's installation and full operation of scrubber technology, consistent with good operational practice, and the owner's exhaustion of any available early emissions reduction or over-compliance credits, then the owner shall be deemed in violation of this section unless it submits a plan to the DES, within 30 days of such non-compliance, and subsequently obtains approval of that plan for achieving compliance within one year from the date of such non-compliance. The DES may impose conditions for approval of such plan.

Table 4 – State-Only Enforceable Operational and Emission Limitations

Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
14.	RSA 125-O:16,I. Economic Performance Incentives	MK1 & MK2	<p>A) DES shall issue to the owner early emissions reduction credits in the form of credits or fractions thereof for each pound of mercury or fraction thereof reduced below the baseline mercury emissions, on an annual basis, in the period prior to July 1, 2013.</p> <p>B) Ratios of early reduction credits to pounds of mercury reduced shall be as follows:</p> <ul style="list-style-type: none"> i) 1.5 credits per pound reduced prior to July 1, 2008; ii) 1.25 credits per pound for reductions between July 1, 2008 and December 31, 2010; and iii) 1.1 credits per pound for reductions between January 1, 2011 and July 1, 2013. <p>C) Reductions shall be calculated based upon the results of stack tests conducted, measurement by continuous emission monitoring, or other methodology approved by the DES to confirm emissions during the time of operation of mercury reduction technology.</p> <p>D) Early emissions reduction credits may be banked by the owner or utilized after July 1, 2013 to meet the reduction requirement of RSA 125-O:13,II. as allowed under RSA 125-O:13,VII.</p> <p>E) Early emissions reduction credits are not sellable or transferable to non-affected sources; however, upon the July 1, 2013 compliance date, the owner may request a one-for-one conversion of early emissions reduction credits to over-compliance credits.</p> <p>F) Should a federal rule applicable to mercury emissions at one or more of the affected sources be enacted with an implementation date prior to July 1, 2013, then early reduction credits may only be earned for emissions reductions that exceed the level required by the federal rule of the affected sources in aggregate or the baseline mercury emissions level, whichever is lower, at the same ratios listed in B), above.</p> <p>G) Early emissions reduction credits shall not be used for compliance with the requirement of RSA 125-O:13,II. prior to the installation of scrubber technology, and shall not be used as a means to delay the installation of the scrubber technology.</p>

Table 4 – State-Only Enforceable Operational and Emission Limitations			
Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
15.	RSA 125-O:16,II. Economic Performance Incentives	MK1 & MK2	<p>A) DES shall issue to the owner over-compliance credits in the form of credits or fractions thereof for each pound of mercury or fraction thereof reduced in excess of the emissions reduction requirement of RSA 125-O:13,II., on an annual basis, following the compliance date of July 1, 2013.</p> <p>B) The ratios of over-compliance credits to excess pounds of mercury reduced shall be as follows:</p> <ul style="list-style-type: none"> i) 0.5 credits per pound reduced for reductions between 80 and 85 percent; ii) 1 credit per pound reduced for reductions between 85 and 90 percent reduction; and iii) 1.5 credits per pound reduced for reductions of 90 percent or greater. <p>C) Over-compliance credits may be banked for future use. The requirements of RSA 125-O:13,V. shall not alter the emissions levels at which over-compliance credits are earned.</p> <p>D) Should a federal rule applicable to mercury emissions at one or more of the affected sources be enacted, then over-compliance credits may only be earned for emissions reductions that exceed the level required by the federal rule of the affected sources in aggregate or the requirement of RSA 125-O:13,II., whichever is lower, at the same ratios listed in B), above.</p> <p>E) At the request of the owner of an affected source, over-compliance credits may be surrendered by the owner to the DES and SO₂ allowances shall be transferred to the owner at a rate of 55 tons SO₂ allowances for every one over-compliance credit. Transfer shall be limited to a maximum of 20,000 total tons SO₂ allowances transferred in a given year, defined as the sum of all SO₂ allowances received by the affected sources under RSA 125-O:4,IV(a)(2) and IV(a)(3), and under this subparagraph. SO₂ allowances shall be credited to the affected sources' accounts in the following year in accordance with RSA 125-O:4,IV(a)(4).</p>

B. Federally Enforceable Operational and Emission Limitations

1. The Permittee shall be subject to the emission limitations summarized in Table 5 below for the listed fuel burning devices.

Table 5 – Summary of Emissions Limitations					
Item No.	Pollutant	MK1	MK2	MKCT1 & MKCT2	MKEB
1.	SO ₂	NA	NA	NA	38.96 lb/hr and 40.0 tons per consecutive 12-month period based on AP-42 emission factors and fuel use records (NSR/PSD avoidance in TP-B-0490)
2.	SO ₂ Emissions Cap for Schiller Station, Merrimack Station, and Newington Station Combined	55,150 tons per calendar year		NA	NA
3.	NO _x	1.22 lb/mmBtu of heat input on a 7-day average by May 31, 1995; 18.1 tons per calendar day when MK2 is not in full operation by May 31, 1995; and 29.1 tons per calendar day for combined NO _x emissions from MK1 and MK2 by May 31, 1999	0.86 lb/mmBtu of heat input on an annual average basis beginning January 1, 2000; 15.4 tons per calendar day by May 31, 1999; and 29.1 tons per calendar day for combined NO _x emissions from MK1 and MK2 by May 31, 1999	0.90 lb/mmBtu for each unit	13.72 lb/hr and 25.0 tons per consecutive 12-month period based on AP-42 emission factors and fuel use records (NSR/PSD avoidance in TP-B-0490)
4.	CO	NA	NA	NA	3.43 lb/hr and 100.0 tons per consecutive 12-month period based on EPA AP-42 emission factors and fuel use records (NSR/PSD avoidance in TP-B-0490)

Table 5 – Summary of Emissions Limitations					
Item No.	Pollutant	MK1	MK2	MKCT1 & MKCT2	MKEB
5.	TSP/PM10	0.27 lb TSP/mmBtu and 1,463.1 tons per consecutive 12-month period	0.227 lb TSP/mmBtu and 3,458.6 tons per consecutive 12-month period	NA	0.30 lb/MMBtu TSP based on Env-A 2002.08; 2.26 lb/hr PM10; and 15.0 tons PM10 per consecutive 12-month period based on EPA AP-42 emission factors and fuel use records (NSR/PSD avoidance in TP-B-0490)
6.	Opacity	Normal Operation – Not to exceed 30% as an hourly average, except during periods of startup or shut down. Not to exceed 40% for any continuous 6- minute period, except during periods of startup, shutdown, malfunction, or soot blowing. Startup, Shutdown, Malfunction, or Soot Blowing – Not to exceed 40% for more than 60 minutes in an 8 hour period.	Normal Operation – Not to exceed 30% as an hourly average, except during periods of startup or shut down. Not to exceed 40% for any continuous 6- minute period, except during periods of startup, shutdown, malfunction, or soot blowing. Startup, Shutdown, Malfunction, or Soot Blowing – Not to exceed 40% for more than 60 minutes in an 8 hour period.	Normal Operation – Not to exceed 40% for any continuous 6- minute period.	Normal Operation – Not to exceed 20% for any continuous 6- minute period, except during periods of startup, shutdown, or malfunction. Startup, Shutdown, or Malfunction – Not to exceed 27% for one 6- minute period per hour.

2. The Permittee shall be subject to the federally enforceable operational and emission limitations identified in Table 6 below:

Table 6 – Federally Enforceable Operational and Emission Limitations			
Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
1.	Temporary Permit FP-T-0054 & Temporary Permit TP-B-0462	MK1 & MK2	No. 2 fuel oil is used to light off fires in MK1 and MK2 before establishing the main coal fires.
2.	Env-A 1606.01(a) (formerly Env-A 402.04(a) and (b)) Coal Sulfur Limits	MK1 & MK2	For coal-burning devices placed in operation before April 15, 1970: A) The sulfur content of coal fired in MK1 and MK2 shall not exceed 2.0 lb/mmBtu averaged over any consecutive 3-month period; and B) The sulfur content of coal fired in MK1 and MK2 shall not exceed 2.8 lb/mmBtu.
3.	Env-A 1604.01(a) (formerly Env-A 402.02(a)) & 40 CFR 60 Subpart Dc §60.42c(d) Sulfur Content Limits for Liquid Fuels	MKEB & Facility Wide	The maximum sulfur content of No. 2 fuel oil and JP-4 aviation fuel shall not exceed 0.40% sulfur by weight. ⁹
4.	Temporary Permit FP-T-0054 MK1-Maximum Fuel Consumption Rates	MK1	A) Coal: The maximum bituminous coal consumption rate for MK1 shall be limited to 48.5 tons per hour and shall not exceed 425,289 tons during any consecutive 12 month period. ¹⁰ B) No. 2 Fuel Oil: The maximum No. 2 fuel oil consumption rate to MK1 shall be limited to 1,656 gallons per hour and shall not to exceed 14.5 million gallons during any consecutive 12 month period. ¹¹

⁹ DES has streamlined the sulfur content limits for liquid fuel. The MKEB is required by 40 CFR 60 Subpart Dc §60.42c(d) to use fuel oil with a sulfur content less than 0.5% sulfur by weight. This requirement to use fuel oil with a sulfur content of less than 0.40% by weight is a more stringent requirement.

¹⁰ The heating value of bituminous coal is assumed to be 12,750 Btu/lb. The fuel consumption limits vary based on the actual heat content of the fuel burned.

¹¹ The heating value of No. 2 fuel oil is assumed to be 140,000 Btu/gal. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

Table 6 – Federally Enforceable Operational and Emission Limitations			
Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
5.	Temporary Permit TP-B-0462 MK2-Maximum Fuel Consumption Rates	MK2	<p>A) Coal: The maximum bituminous coal consumption rate for MK2 shall be limited to 136.2 tons per hour and shall not exceed 1,193,078 tons during any consecutive 12 month period.¹²</p> <p>B) No. 2 Fuel Oil: The maximum No. 2 fuel oil consumption rate to MK2 shall be limited to 1,656 gallons per hour and shall not to exceed 14.5 million gallons during any consecutive 12 month period.¹³</p>
6.	Temporary Permit FP-T-0054 MK1-ESP Operation	MK1	<p>A) All available sections of each ESP on Unit #1 (MK1-PC1 and MK1-PC2) shall be in service at greater than 35 MW load. No more than a total of 7 sections in the two ESP units shall be out of service at greater than 35 MW load. If more than 7 sections are out of service at greater than 35 MW load, the owner or operator must notify (e.g., call or e-mail) DES within 24 hours of discovery unless the DES offices are closed then the next DES business day. At DES' request, PSNH shall be required to conduct particulate matter testing if more than 7 sections are out of service. During startup and when Unit #1 is below 35 MW of generation, 16 of 22 fields in MK1-PC1 must be in service and 4 of 10 fields in MK1-PC2 must be in service.</p> <p>B) PSNH –Merrimack Station shall continuously operate and maintain the ESP systems to minimize particulate matter emissions to meet permit conditions and to maintain compliance with Env-A 2000. The operation and maintenance shall include normal rounds by a qualified operator for checking and cleaning of the hoppers and transport lines. PSNH – Merrimack Station shall inspect and perform necessary maintenance on the ESP during each planned outage. All critical maintenance activities performed and corrective actions taken on the ESP systems shall be recorded and shall be made available for review at the request of DES.</p>

¹² The heating value of bituminous coal is assumed to be 12,750 Btu/lb. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

¹³ The heating value of No. 2 fuel oil is assumed to be 140,000 Btu/gal. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

Table 6 – Federally Enforceable Operational and Emission Limitations			
Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
7.	Temporary Permit TP-B-0462 MK2-ESP Operation	MK2	<p>A) All available sections of each ESP on Unit #2 (MK2-PC4 and MK2-PC5) shall be in service at greater than 120 MW of generation. If more than 8 sections are out of service at greater than 120 MW load, the owner or operator must notify (e.g., call or e-mail) DES within 24 hours of discovery unless the DES offices are closed then the next DES business day. At DES' request, PSNH shall be required to conduct particulate matter testing if more than 8 sections are out of service. During startup and when Unit #2 is below 120 MW of generation, 4 of 12 fields in MK2-PC4 must be in service and 12 of 24 fields in MK2-PC5 must be in service.</p> <p>B) PSNH –Merrimack Station shall continuously operate and maintain the ESP systems to minimize particulate matter emissions to meet permit conditions and to maintain compliance with Env-A 2000. The operation and maintenance shall include normal rounds by a qualified operator for checking and cleaning of the hoppers and transport lines. PSNH – Merrimack Station shall inspect and perform necessary maintenance on the ESP during each planned outage. All critical maintenance activities performed and corrective actions taken on the ESP systems shall be recorded and shall be made available for review at the request of DES.</p>
8.	Temporary Permit FP-T-0054 & Temporary Permit TP-B-0462 Flyash Re-injection	MK1 & MK2	Flyash is reinjected from the ash hoppers into the cyclone boilers for up to 24 hours per day and each day of the year. This is considered normal operation of the flyash injection system. ¹⁴
9.	Temporary Permits FP-T-0054 & TP-B-0462 MK1 & MK2 Opacity Limits	MK1 & MK2	In accordance with Env-A 2002.01, during normal operation, the average opacity shall not exceed 40% for any continuous 6-minute period, except under the following conditions. In accordance with Env-A 2002.04(b), the average opacity may exceed 40% during periods of startup, shutdown, malfunction, soot blowing, grate cleaning, and cleaning of fires, for a non-overlapping set or sets of time up to 60 minutes in any 8-hour period. The hourly average opacity may not exceed 30% opacity except during the eight hours preceding the generator being phased on-line (boiler startup) or the eight hours after the generator being tripped off-line (boiler shutdown). PSNH – Merrimack Station shall track all 6-minute opacity exceedances and the cause for each exceedance and report these permit deviations to DES in accordance with Table 11, Item 19 and include them in the Semi-Annual Permit Deviation/Monitoring Report in accordance with Table 11, Item 18.

¹⁴ Particulate matter emissions from the boiler are generally lower when flyash is not reinjected into the boiler.

Table 6 – Federally Enforceable Operational and Emission Limitations			
Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
10.	Env-A 405.01 State Acid Rain Deposition Control Program & Temporary Permits FP-T-0054 and TB-B-0462	MK1 & MK2	The total sulfur dioxide emissions from PSNH - Merrimack Station (MK1 & MK2), Newington Station (Unit 1), and Schiller Station (Units 4, 5, & 6) shall not exceed 55,150 tons per calendar year.
11.	Env-A 2002.06 (formerly Env-A 1202.05(b))	MK1	The maximum allowable total suspended particulate matter (TSP) emission rate from MK1, including emissions rates experienced during periods of flyash re-injection, shall be limited to 0.27 lb/mmBtu. The maximum TSP emission rate is obtained from use of the equation below: $E = 0.880 * I^{0.166}$ Where: E = maximum allowable particulate matter emission rate in lb/mmBtu; and I = maximum gross heat input rate in mmBtu/hr.
12.	Temporary Permit FP-T-0054 MK1 TSP Emission Limit	MK1	Maximum TSP emissions from MK1 shall not exceed 1,463.1 tons during any consecutive 12 month period.
13.	Env-A 2003.06 (formerly Env-A 1202.05(b))	MK2	The maximum allowable total suspended particulate matter (TSP) emission rate from MK2, including emissions rates experienced during periods of flyash re-injection, shall be limited to 0.227 lb/mmBtu. The maximum TSP emission rate is obtained from use of the equation below: $E = 0.880 * I^{0.166}$ Where: E = maximum allowable particulate matter emission rate in lb/mmBtu; and I = maximum gross heat input rate in mmBtu/hr.
14.	Temporary Permit TP-B-0462 MK2 TSP Emission Limit	MK2	Maximum TSP emissions from MK2 shall not exceed 3,458.6 tons during any consecutive 12 month period.

Table 6 – Federally Enforceable Operational and Emission Limitations			
Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
15.	Env-A 1211.03(c)(1)b.2. & Env-A 1211.03(d)(1)	MK2	NOx emissions limits for cyclone-fired boilers firing coal, or any combination of fuels utilizing coal with a maximum net power output of more than 320 megawatts at all times after December 31, 1989, shall comply with the NOx RACT emission limits specified in Env-A 1211.03(d), i.e., 15.4 tons of NOx per 24-hour calendar day and either: A) Comply with the NOx RACT limit of 1.40 lb/mmBtu based on a 24-hour calendar day average; B) Install, operate, and maintain SNCR technology with a minimum normalized stoichiometric ratio of 1:1; OR C) Install, operate, and maintain NOx RACT air pollution control equipment or an air pollution control process having equivalent or greater NOx removal efficiency as SNCR, approved by the Division and EPA. (Note that the facility has chosen Option C))
16.	40 CFR §76.6(a)(2) ¹⁵	MK2	MK2 shall not discharge emissions of NOx to the atmosphere in excess of 0.86 lb/mmBtu of heat input on an annual average basis.
17.	State Permits to Operate PO-B-0034 & PO-B-0035	MKCT1 & MKCT2	Maximum fuel consumption rate of No.1 fuel oil or JP-4 shall not exceed 2,279 gal/hr and 19.96 million gallons during any consecutive 12-month period for each CT. ¹⁶
18.	Env-A 2002.01 (formerly Env-A 1202.01)	MKCT1 & MKCT2	Average opacity from the CTs shall not be in excess of 40% for any continuous 6 minute period.
19.	State Permit to Operate PO-B-1788	MKEG	Maximum fuel consumption rate of No. 2 fuel oil shall not exceed 28.7 gal/hr and 14,350 gallons during any consecutive 12 month period. ¹⁷
20.	Env-A 1211.02(j) (formerly Env-A 1211.01(j))	MKEG	Each emergency generator shall be limited to a maximum of 500 hours of operation during any consecutive 12-month period. The combined theoretical potential NOx emissions of all emergency generators at PSNH – Merrimack Station are limited to less than 25 tons for any consecutive 12-month period. If either of these conditions is exceeded, all such emergency generators become immediately subject to Env-A 1211.11.
21.	Env-A 2002.02	MKEG	Average opacity from the MKEG shall not be in excess of 20% for any continuous 6 minute period.

¹⁵ Note that MK1 falls below the 1,060,000 lb/hr steam at full load applicability threshold for Phase I Group 2 Boilers and so is not subject to 40 CFR §76.6(a)(2), which is a NOx limit of 0.86 lb/mmBtu.

¹⁶ The heating value of the fuel is assumed to be 140,000 Btu/gal. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

¹⁷ The heating value of the fuel is assumed to be 137,000 Btu/gal. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

Table 6 – Federally Enforceable Operational and Emission Limitations			
Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
22.	Env-A 2002.02, Env-A 2002.04, & 40 CFR 60 Subpart Dc Section 60.43c(c) and (d)	MKEB	Pursuant to Env-A 2002.02, and except for the exemptions allowed under Env-A 2002.04, the average opacity shall not exceed 20% for any continuous 6-minute period. ¹⁸ (Streamlining opacity requirements.)
23.	Env-A 2002.08 (formerly Env-A 1202.07)	MKEG	The TSP emission rate shall not exceed 0.30 lb/mmBtu. ¹⁹
24.	State Permits to Operate PO-BP-2416 & PO-BP-2417	MKPCC & MKSCC	A) Maximum operating rate of the primary crusher shall be limited to 885 tons coal/hr. B) Maximum coal throughput of the secondary crusher shall be limited to 690 tons coal/hr. C) Based on the maximum coal usage allowed in MK1 and MK2's State Permits to Operate, PO-B-0426 and PO-B-0427, the maximum annual coal throughput shall be limited to 1,618,367 tons during any consecutive 12-month period.
25.	State Permits to Operate PO-BP-2416 & PO-BP-2417	MKPCC & MKSCC	The primary crusher is located underground beneath the rail car track hopper and is fully enclosed to reduce fugitive emissions. The secondary coal crushers are fully enclosed in an aboveground building to reduce fugitive emissions. The coal crusher systems shall be inspected and maintained regularly. Any failures of these enclosures to prevent fugitive emissions shall be repaired, as necessary.
26.	Env-A 2103.02 (formerly Env-A 1203.05)	MKPCC & MKSCC	Visible fugitive emissions or visible stack emissions shall not exceed an average of 20% opacity for any continuous 6 minute period, except one period of 6 continuous minutes in any 60-minute period during startup, shutdown, or malfunction.
27.	40 CFR 72, 73, 75, 76, and 77.	MK1 & MK2	PSNH – Merrimack Station shall comply with the applicable Federal Acid Rain Program provisions.

¹⁸ The MKEB is subject to opacity regulations under 40 CFR 60 Subpart Dc, Sections 60.43c(c) and (d) which are the same as current requirements of Env-A 2002.02 and Env-A 2002.04. Hence these two permit limits are combined for streamlining in the permit.

¹⁹ The Owner or Operator shall demonstrate compliance with this requirement by using an approved EPA AP-42 emission factor and EPA/DES approved heat input content (Btu/gal). This calculation shall be maintained on file at the facility.

Table 6 – Federally Enforceable Operational and Emission Limitations			
Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
28.	40 CFR 68 and 1990 CAA Section 112(r)(1) Accidental Release Program Requirements	Facility wide	<p>The facility is subject to the Purpose and General Duty clause of the 1990 Clean Air Act, Section 112(r)(1). General Duty includes the following responsibilities:</p> <p>(A) Identify potential hazards that may result from such releases using appropriate hazard assessment techniques;</p> <p>(B) Design and maintain a safe facility;</p> <p>(C) Take steps necessary to prevent releases; and</p> <p>(D) Minimize the consequences of accidental releases that do occur.</p> <p>The facility stores quantities of ammonia above the threshold level and has submitted a risk management plan to the Part 68 implementing agency as required by the 1990 Clean Air Act, Section 112(r)(7)(ii). Administrative controls will be established by PSNH – Merrimack Station in order to monitor that inventories of regulated substances (except for ammonia) are maintained below the specified threshold quantities.</p> <p>If, in the future, PSNH – Merrimack Station wishes to store quantities of other regulated substances above the threshold levels, a risk management plan shall be submitted to the Part 68 implementing agency in a timely manner, prior to exceeding threshold quantity levels.</p>
29.	Temporary Permit TP-B-0490	MKEB	The maximum gross heat input rate of the Emergency Boiler is limited to less than or equal to 96.0 mmBtu/hr.
30.	RSA 125-C:6, RSA 125-C:11, Env-A 606.04, & Temporary Permit TP-B-0490	MKEB	<p>A) Maximum fuel consumption rate of No. 2 fuel oil shall not exceed 520 gal/hr and 11,760 gal/day²⁰; or</p> <p>B) Maximum fuel consumption rate of on-road low sulfur diesel oil shall not exceed 701 gal/hr.</p>
31.	Temporary Permit TP-B-0490 (NSR/PSD Avoidance)	MKEB	The owner or operator shall be limited to use less than 1,405,000 gallons of No. 2 fuel oil or 2,490,000 gallons of on-road low sulfur diesel oil or combination of these two fuels per consecutive 12-month period ²¹ such that emissions from the Emergency Boiler stay below the significance levels for all criteria pollutants contained in Table 6, Item 36.
32.	RSA 125-C:6, RSA 125-C:11, Env-A 606.04, & Temporary Permit TP-B-0490	MKEB	<p>A) The Emergency Boiler is allowed to operate for training purposes or performance testing with MK1 or MK2 in operation.</p> <p>B) The Emergency Boiler is allowed to operate with either or both Combustion Turbines #1 & #2 in operation and the Emergency Generator in operation.</p>
33.	Temporary Permit TP-B-0490	MKEB	The Emergency Boiler can be replaced each year with a similar unit at or below the fuel consumption limits in Table 1 and which satisfies the stack height requirements in Table 2.

²⁰ The heating value of No. 2 fuel oil is assumed to be 140,000 Btu/gal. The heating value of on-road low sulfur diesel fuel is assumed to be 137,000 Btu/gal. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

²¹ The 1,405,000 gallons No. 2 fuel oil per consecutive 12-month period fuel use limit keeps the Emergency Boiler below the 40 ton per year significance level for SO₂ emissions and the 2,490,000 gallons on-road low sulfur diesel oil per consecutive 12-month period fuel use limit keeps the Emergency Boiler below the 25 ton per year significance level for NO_x emissions.

Table 6 – Federally Enforceable Operational and Emission Limitations																					
Item No.	Regulatory Cite	Applicable Emission Unit	Applicable Requirement																		
34.	40 CFR 60 Subpart Dc § 60.42c(i)	MKEB	The fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction.																		
35.	Env-A 606.04 & 40 CFR 60 Subpart Dc § 60.42c(d)	MKEB	The sulfur content of on-road low sulfur diesel oil shall not exceed 0.05 percent sulfur by weight. ²²																		
36.	Temporary Permit TP-B-0490 (PSD/NSR Avoidance)	MKEB	Hourly ²³ and consecutive 12-month emissions from the Emergency Boiler shall be limited as provided in the Table below: <table border="1" data-bbox="669 743 1528 1031"> <thead> <tr> <th>Pollutant</th> <th>Short-term limit (lb/hr)²⁴</th> <th>Tons per consecutive 12-month period²⁵</th> </tr> </thead> <tbody> <tr> <td>NOx</td> <td>13.72</td> <td>25.0</td> </tr> <tr> <td>SO2</td> <td>38.96</td> <td>40.0</td> </tr> <tr> <td>CO</td> <td>3.43</td> <td>100.0</td> </tr> <tr> <td>PM10</td> <td>2.26</td> <td>15.0</td> </tr> <tr> <td>VOC</td> <td>0.14</td> <td>25.0</td> </tr> </tbody> </table>	Pollutant	Short-term limit (lb/hr)²⁴	Tons per consecutive 12-month period²⁵	NOx	13.72	25.0	SO2	38.96	40.0	CO	3.43	100.0	PM10	2.26	15.0	VOC	0.14	25.0
Pollutant	Short-term limit (lb/hr)²⁴	Tons per consecutive 12-month period²⁵																			
NOx	13.72	25.0																			
SO2	38.96	40.0																			
CO	3.43	100.0																			
PM10	2.26	15.0																			
VOC	0.14	25.0																			
37.	40 CFR 61 Subpart M, Env-A 504.01(e) and Env-A 1800 Asbestos Management and Control	Facility wide	PSNH – Merrimack Station shall comply with the asbestos requirements of Env-A 1800 and 40 CFR 61.145 during demolition and/or renovation.																		
38.	40 CFR 63 Subpart YYYY MACT for Stationary Combustion Turbines	MKCT1 & MKCT2	The MACT is applicable to the combustion turbines, but no emission limitations, operating requirements or monitoring, recordkeeping, or reporting requirements are specified for existing units.																		

²² Note that the 0.05% sulfur by weight limit required by Env-A 606.04 (modeling for SO2 NAAQS) is more stringent than the 0.5% sulfur by weight limit specified in 40 CFR 60 Subpart Dc Section 60.42c(d). The facility can burn No. 2 fuel oil at less than 0.4% sulfur by weight and pass modeling for SO2.

²³ The TSP and PM10 emission limits have been streamlined. Env-A 2002.08 limits TSP emissions to 0.30 lb/mmBtu. The PM10 hourly and annual emission limits of 2.26 lb/hr and 15 tpy are more stringent.

²⁴ Short term emissions limits of criteria pollutants in pounds per hour (lb/hr) are based on United States Environmental Protection Agency (EPA) AP-42 5th Edition January 1995, Section 1.3 Fuel Combustion (Updated 9/98) Tables 1.3-1, 1.3-2, and 1.3-3. The facility will submit annual emissions for the Emergency Boiler based on these AP-42 emission factors multiplied by actual fuel use.

²⁵ Consecutive 12-month period emissions limits are the significance levels to keep the PSNH - Merrimack Station below major modification levels requiring Non-Attainment Review or Prevention of Significant Deterioration Review.

C. Annual SO₂ Allowance Programs (40 CFR 72, 40 CFR 73, Env-A 611.07, and Env-A 2900)1. SO₂ Allowance Allocation

- a) In accordance with 40 CFR Part 73, SO₂ allowances pursuant to the Federal Acid Rain Program for this facility are allocated as indicated in the following table:

Table 7 – Federal Annual SO₂ Allowance Allocations (tons) (40 CFR 73.10 Table 2)		
	2000 - 2009	2010 and Beyond
MK1	4288	4296
MK2	9242	9257

- b) Pursuant to Env-A 2906.02 [State-only enforceable], *Allocation of SO₂ Allowances*, for 2007 and subsequent years, PSNH's Schiller, Merrimack and Newington stations shall transfer the SO₂ Allowances allocated pursuant to the Federal Acid Rain Program to DES, and DES shall transfer SO₂ allowances (7,289 tons) calculated pursuant to Env-A 2900 plus any potential bonus allowances calculated pursuant to Env-A 2906.07, *Bonus Allocation of SO₂ Allowances*, back to PSNH's Schiller, Merrimack, and Newington stations. The amount of SO₂ Allowances allocated to PSNH Merrimack shall be determined according to the methodology in Env-A 2906.05, *Allowance Allocation Methodology*.
2. Compliance
- a) Pursuant to 40 CFR 73.35, the Permittee shall comply with the SO₂ emission limitation requirements.
- b) At the end of each calendar year, the Permittee shall hold sufficient SO₂ allowances equivalent to the SO₂ emissions during that calendar year.
3. General Provisions

Pursuant to Env-A 611.07, SO₂ allowances lawfully held or acquired by the Permittee shall be governed by the following:

- a) Emissions from the affected units shall not exceed any SO₂ allowances held by the affected unit;
- b) The number of SO₂ allowances held by the Permittee shall not be limited;

- c) The Permittee shall not use SO₂ allowances to avoid compliance with any other applicable requirement of either state or federal rules or of the provisions of the Clean Air Act; and
- d) Any SO₂ allowances held by the Permittee shall be accounted for according to the procedures established in the applicable provisions of 40 CFR 72, 40 CFR 73, and 40 CFR 76.

4. Excess Emissions

Pursuant to 40 CFR 72.9(e), if the Permittee has excess emissions, the Permittee shall submit a proposed offset plan as required under 40 CFR 77 and pay the penalty and any interest without demand pursuant to 40 CFR 77.

5. Allowance Transfer

The Permittee shall transfer allowances according to the procedures in 40 CFR 73.50.

D. Ozone Season NO_x Budget Trading Program (Env-A 3200)

1. The NO_x allowances shall be allocated to PSNH - Merrimack Station for each subsequent control periods according to the methodology in Env-A 3207.04, *Allowance Allocation Methodology*.
2. Ozone Season NO_x Emissions Cap
 - a) Pursuant to Env-A 3200, PSNH - Merrimack Station shall not emit NO_x emissions during any control period in excess of the amount of NO_x allowances held in Merrimack Station's NATS compliance account for that control period as of the allowance transfer deadline of November 30.
 - b) Pursuant to Env-A 3200, PSNH - Merrimack Station may obtain additional NO_x allowances to comply with the NO_x Budget Program.
3. Allowance Transfer and Use
 - a) Pursuant to Env-A 3209.01, *Marketable Emissions Authorization*, an allowance shall be a marketable emissions authorization that may be bought, sold, or traded at any time during any year, not just the current year.
 - b) Pursuant to Env-A 3209.02, *Limited Authorization*, an allowance shall only be used for compliance with the NO_x Budget Program in a designated compliance year by being in a compliance account as of the allowance transfer deadline of November 30, or by being transferred into the compliance account by an allowance transfer submitted by the allowance transfer deadline.

- c) PSNH - Merrimack Station shall comply with the NO_x allowance transfer and use provisions pursuant to Env-A 3209, *Allowance Transfer and Use*.
 - d) Pursuant to Env-A 3209.09, *Price Disclosure*, subject to a claim of confidentiality in accordance with Env-A 103, PSNH - Merrimack Station shall make available to any person, all information regarding transaction cost and allowance price.
4. Allowance Banking
- a) Pursuant to Env-A 3210.01, *Retention of Unused Allowances*, the banking of allowances shall be permitted to allow the retention of unused allowances from one year to a future year in either a compliance account, an overdraft account, or a general account.
 - b) Pursuant to Env-A 3210.02, *Account Designation*, unused allowances as of the end of the allowance transfer deadline shall be retained in the compliance, overdraft, or general account and designated as banked allowances after the NATS administrator has made all deductions for a given control period from the compliance account or overdraft account pursuant to Env-A 3215, *End-of-Season Reconciliation*.
 - c) Pursuant to Env-A 3210.03, *Requirements for Use*, banked allowances may be used in the current year on a 1-for-1 basis.
5. End-of-Season Reconciliation
- a) Pursuant to Env-A 3206.01, *Limited Authorization*, PSNH - Merrimack Station shall, no later than November 30th of each calendar year, hold a quantity of NO_x allowances in PSNH - Merrimack Station's current year NATS account that is equal to or greater than the total NO_x emitted from PSNH - Merrimack Station during the period May 1st through September 30th of the subject year.
 - b) PSNH - Merrimack Station shall determine compliance and reconcile allowances by November 30th of each year for the control period of that year pursuant to Env-A 3215.
6. Authorized Account Representative (Env-A 3211.04)
- a) Only the AAR or alternate AAR shall request transfers of allowances in a NATS account.
 - b) The AAR or alternate AAR shall be responsible for all transactions and reports submitted to the NATS.
 - c) The alternative AAR shall have the same authority as the primary representative, however, all correspondence from the NATS administrator shall be directed to the primary AAR.
 - d) Pursuant to Env-A 3211.05 (f), PSNH - Merrimack Station shall replace an AAR by submitting a revised Account Certificate of Representation to the NATS administrator along with the information contained in Env-A 3211.05(b) and (c) and the name of the AAR who is being replaced.

7. Conversion of Allowances to DERs

Pursuant to Env-A 3207.05, PSNH - Merrimack Station may convert unused allowances to DERs in accordance with Env-A 3206.02(e) for use as NSR offsets during the ozone season and the procedures for DER generation pursuant to Env-A 3103. Upon conversion, PSNH - Merrimack Station shall surrender those converted allowances as if they had been used for actual emissions. Under no circumstances, except as noted above, shall unused allowances be converted to, or used as, DERs or ERCs.

8. Prohibition on Property Rights (Env-A 3207.07)

- a) Neither an allowance nor any future allocations, which are subject to modification by DES, shall constitute a security or other form of property.
- b) An allowance shall not be used prior to the control period for which the allowance is allocated.

9. Excess Emissions and Enforcement Provisions (Env-A 3217)

- a) If emissions exceed the allowances held by PSNH - Merrimack Station by the allowance transfer deadline (November 30th), the NATS administrator shall automatically deduct three tons of allowances from the next control period for every ton of excess emissions from PSNH - Merrimack Station's compliance account or overdraft account.
- b) In accordance with RSA 125-J:4-a., for purposes of enforcement of the NO_x Budget Program, in determining the number of days of violation, any excess emissions for the control period shall presume that each day in the control period of 153 days, constitutes a day in violation unless PSNH - Merrimack Station can demonstrate, through use of verifiable emissions data that a lesser number of days should be considered. In addition, each ton of excess emissions shall constitute a separate violation.

E. Non-Ozone Season NO_x Allowances and NO_x RACT Orders (NO_x RACT Orders ARD-97-001 and ARD-98-001)

1. Pursuant to NO_x RACT Order No. ARD-97-001, Condition D.1.a.ii., no later than May 31, 1999, PSNH - Merrimack Station shall comply with a NO_x emissions cap no greater than 29.1 tons per calendar day for the combined NO_x emissions from MK1 and MK2. This requirement shall not supersede future requirements for MK2 as listed in Env-A 1211.03(f) (formerly) (now it is Env-A 1211.03(d)) and any amendments, thereto.
2. Pursuant to NO_x RACT Order No. ARD-97-001, Condition D.1.b., when MK2 is not in full operation, PSNH - Merrimack Station shall comply with a NO_x emissions cap of 18.1 tons per calendar day for the NO_x emissions from MK1 by May 31, 1995. This cap applies indefinitely into the future, until such time that it is modified or rescinded by DES and approved by EPA as a State Implementation Plan revision. This requirement shall not supersede future requirements for MK1. "Full operation" shall be defined as a unit

operating with the CEM activated collecting valid data for all 24 hours on a calendar day. The CEM is activated and starts collecting valid data when fires are put in the boiler.

3. Pursuant to NO_x RACT Order No. ARD-97-001, Condition D.1.c., PSNH - Merrimack Station shall comply with a NO_x emission rate limit of 1.22 lb/mmBtu based on a rolling 7-day average for MK1 by May 31, 1995. This emission rate limit applies indefinitely into the future, until such time that it is modified or rescinded by DES and approved by EPA as a State Implementation Plan revision. This requirement shall not supersede future requirements for MK1. This rolling 7-day average shall be calculated by adding up 7 consecutive 24-hour calendar day averages and dividing the sum by 7. Each 24-hour calendar day average shall be calculated using valid CEM data only. Hours when there are no fires in the boiler and the CEM is not activated shall not be included in the 24-hour calendar day average. The rolling 7-day average shall be calculated using days when there is valid CEM data only. Days when there are no fires in the boiler and the CEM is not activated shall not be included in the 7-day average.
4. Pursuant to NO_x RACT Order No. ARD-97-001, Condition D.1.d., PSNH – Merrimack Station shall demonstrate compliance with all of the above alternative emission limits (AEL) by monitoring the hourly emissions from MK1 and MK2 in accordance with Env-A 1211.22 (formerly Env-A 1211.21). “Alternative emission limits” or AEL shall be defined as limits other than those listed in Env-A 1211, and the above limits in Items 1., 2., and 3. are not alternatives to each other.
5. Pursuant to NO_x RACT Order ARD-97-001, Condition D.1.e., within 30 days following the end of each calendar quarter, PSNH – Merrimack Station shall report any excess emissions (emissions greater than the above AEL) which occurred.
6. Pursuant to NO_x RACT Order ARD-97-001, Condition D.1.f., PSNH – Merrimack Station shall comply with the remainder of the original compliance plan as listed in C.5.b. – C.5.e. of the NO_x RACT Order No. ARD-97-001 (Items 7 through 10 below).
7. Pursuant to NO_x RACT Order ARD-97-001, Condition C.5.b., PSNH – Merrimack Station shall comply with the requirement in Env-A 1211.03(c)(1)b.2. of maintaining an emission rate from MK2 at or below 1.40 lb/MMBtu based on a 24-hour calendar day average and with the requirements in Env-A 1211.03(d) of maintaining emissions from MK2 at or below 35.4 tons/day and 12,921 tons/year during the period May 31, 1995 through May 31, 1999 by the installation of Selective Catalytic Reduction (SCR).
8. Pursuant to NO_x RACT Order ARD-97-001, Condition C.5.c.i., PSNH – Merrimack Station shall initially comply with the requirement in Env-A 1211.13(b) of maintaining emission rates from MKCT1 and MKCT2 at or below 0.90 lb/MMBtu based on an hourly average; and Condition C.5.c.ii., based on the results of future periodic testing, PSNH – Merrimack Station shall maintain future compliance by emissions averaging (if necessary) between MK1, MK2, MKCT1, and MKCT2.
9. Pursuant to NO_x RACT Order ARD-97-001, Condition C.5.d., PSNH – Merrimack Station shall comply with Env-A 1211.11 for the MKEG (emergency generator).

10. Pursuant to NO_x RACT Order ARD-97-001, Condition C.5.e., PSNH – Merrimack Station shall comply with the testing requirements in Env-A 1211.20 (formerly Env-A 1211.21), the monitoring requirements in Env-A 1211.21 (formerly Env-A 1211.22), and the recordkeeping and reporting requirements in Env-A 905 and Env-A 909, respectively (formerly Env-A 901.06 and Env-A 901.07, respectively).
11. Pursuant to NO_x RACT Order ARD-97-001, Condition E., the preamble to the USEPA’s proposed Model Open Market Trading Rule or OMTR (60 Federal Register 39668, August 3, 1995) states: “b. Overcompliance With An Alternative Emission Limit - In many states, sources are given flexibility from RACT requirements when the State grants them an alternative emission limit (AEL) that is less stringent than the RACT standard. The OMTR would not allow sources to generate DER’s by reducing emissions below levels required by an AEL but still above levels required by the otherwise applicable RACT standard. Sources subject to AEL’s could, however, generate DER’s by reducing emissions below the levels associated with the otherwise applicable RACT standard.”
 - a) PSNH - Merrimack Station shall not be allowed to generate DERs by reducing emissions below levels required by the above AEL, but PSNH - Merrimack Station shall be allowed to generate DERs by reducing emissions below the emissions limitations and emission rate limitations as listed in Env-A 1211. In the event that PSNH - Merrimack Station cannot meet the above AEL for some unforeseen reason (e.g., control equipment malfunction), PSNH - Merrimack Station may use DERs for compliance purposes.
 - b) This Order grants approval to PSNH - Merrimack Station to quantify DERs in accordance with the protocols submitted by PSNH - Merrimack Station to comply with these AEL. Upon submittal by PSNH - Merrimack Station of a “Notice of Generation” and accompanying documentation, as described in Env-A 3100 which was proposed for adoption on October 10, 1996, PSNH - Merrimack Station shall be allowed to trade 142 tons of NO_x DERs created during the period June 22, 1995 through September 30, 1995 to other sources in New Hampshire in accordance with Env-A 3100. PSNH - Merrimack Station may be allowed to trade additional tons of NO_x DERs created during subsequent periods, upon submittal of additional “Notices of Generation” and accompanying documentation.
12. Pursuant to NO_x RACT Order No. ARD-98-001, Condition D.1.a., PSNH - Merrimack Station shall comply at all times with a maximum emission limit for MK2 of 15.4 tons of NO_x per 24-hour calendar day by May 31, 1999. Ozone season Discrete Emissions Reductions (DERs) may be used to comply with this limit during the ozone season and non-ozone season DERs may be used during the non-ozone season.
13. Pursuant to NO_x RACT Order No. ARD-98-001, Condition D.1.c., PSNH’s Schiller, Merrimack, and Newington Stations (MK1, MK2, NT1, SR4, SR5, and SR6) shall comply with a combined NO_x emissions cap of 8208 tons for the non-ozone season beginning on October 1st and ending on April 30th. Ozone season DERs and non-ozone season DERS may be used to comply with this non-ozone season limit. Previously generated (1995 through 1998) DERs may be used to comply with this emissions cap. For the purpose of compliance with this RACT Order, DERs may be generated from PSNH’s Newington and

Schiller Stations, in accordance with the PSNH Discrete Emissions Reductions Protocol dated April 10, 1998, submitted by PSNH and listed in Items 17 and 18 below to comply with this emissions cap.

14. Pursuant to NO_x RACT Order No. ARD-98-001, Condition D.1.d., beginning in 2003, PSNH Merrimack Station shall comply during the 153-day ozone season with an emission limit in terms of a seasonal NO_x emissions cap of 3,727 tons minus any tons allocated to new sources and minus 100 tons allocated to a set-aside account dedicated to fulfilling alternative I/M requirements (while such requirements are in effect in New Hampshire) per calendar season for the combined NO_x emissions from MK1, MK2, NT1, SR4, SR5, and SR6 during the 2003 and post-2003 ozone seasons in accordance with Env-A 3200 upon adoption. Consistent with the OTC Model NO_x Budget Trading Program, compliance may be achieved by allowance trading within the Ozone Transport Region (OTR). The specific methodology for allocating allowances among applicable budget sources for 2003 and beyond shall be determined by NHDES – Air Resources Division and implemented as an amendment to Env-A 3200 prior to 2003.
15. Pursuant to NO_x RACT Order No. ARD-98-001, Condition D.1.f., PSNH Merrimack Station shall demonstrate compliance with the alternative emission limits in this RACT Order by monitoring the hourly emissions from MK1, MK2, NT1, SR4, SR5, and SR6 in accordance with Env-A 1211.21 (formerly Env-A 1211.22) and Env-A 3200. Alternative emission limits shall be defined as limits other than those listed in Env-A 1211 and RACT Order No. ARD-97-001, and the above limits are not alternatives to each other.
16. Pursuant to NO_x RACT Order No. ARD-98-001, Condition D.1.g., within 30 days following the end of each calendar quarter, PSNH Merrimack Station shall report any excess emissions (emissions greater than the above alternative emission limits) which occurred.

F. Multiple Pollutant Annual Budget Trading and Banking Program (Env-A 2900) [State-only enforceable]

1. SO₂ Allowance Allocation

Pursuant to Env-A 2900, *Multiple Pollutant Annual Budget Trading and Banking Program*, and subsequent revisions, DES shall allocate SO₂ Allowances to PSNH - Merrimack Station according to the methodology in Env-A 2906.05, *Allowance Allocation Methodology* for 2007 and subsequent years.

2. NO_x Allowance Allocation

- a) Pursuant to Env-A 2900, *Multiple Pollutant Annual Budget Trading and Banking Program*, and subsequent revisions, DES shall allocate NO_x Allowances to PSNH - Merrimack Station according to the methodology in Env-A 2906.05, *Allowance Allocation Methodology* for 2007 and subsequent years.
- b) Pursuant to Env-A 2900 [State enforceable only], *Multiple Pollutant Annual Budget Trading and Banking Program*, and subsequent revisions, for 2007 and subsequent years,

DES shall calculate the difference between the annual NO_x budget (no more than 3,644 tons) and the ozone season NO_x allowances allocated pursuant to Env-A 3200.

- c) Pursuant to Env-A 2900 [State enforceable only], *Multiple Pollutant Annual Budget Trading and Banking Program*, and subsequent revisions, for 2007 and subsequent years, DES shall allocate annual NO_x allowances equivalent to the difference between the annual NO_x budget and the ozone season NO_x allowances to PSNH's Schiller, Merrimack, and Newington stations.
3. Allowance Transfer and Use
 - a) Pursuant to Env-A 2907.01, *Marketable Emissions Authorization*, an allowance shall be a marketable emissions authorization that may be bought, sold, or traded at any time during any year, not just the current year.
 - b) Pursuant to Env-A 2907.02, *Limited Authorization*, an allowance shall only be used for compliance with the Multiple Pollutant Annual Budget Trading and Banking Program in a designated compliance year by being in a compliance or overdraft account as of the allowance transfer deadline, or by being transferred into the compliance account by an allowance transfer submitted by the allowance transfer deadline.
 - c) PSNH - Merrimack Station shall comply with the allowance transfer and use provisions pursuant to Env-A 2907, *Allowance Transfer and Use*, and Env-A 2909, *Allowance Tracking System*.
 - d) Pursuant to Env-A 2907.08, *Price Disclosure*, subject to a claim of confidentiality in accordance with Env-A 103, PSNH - Merrimack Station shall make available to any person, all information regarding transaction cost and allowance price.
 - e) Pursuant to Env-A 2907.09, *Use of Allowances by Utilities* and RSA 125-J:5, X, the use of allowances by a utility as defined in RSA 362:2, shall be subject to such additional conditions as ordered pursuant to applicable law by the PUC.
 4. Allowance Banking
 - a) Pursuant to Env-A 2908.01, *Retention of Unused Allowances*, the banking of allowances shall be permitted to allow the retention of unused allowances from one year to a future year in either a compliance account, an overdraft account, or a general account.
 - b) Pursuant to Env-A 2908.02, *Account Designation*, unless otherwise permitted pursuant to Env-A 2909.03, *General Accounts*, unused allowances as of the end of the allowance transfer deadline shall be retained in the compliance, overdraft, or general account and designated as banked allowances after the ATS administrator has made all deductions for a given year from the compliance account or overdraft account pursuant to Env-A 2913, *Compliance Certification*.
 5. Authorized Account Representative (Env-A 2909.04)

- a) Only the AAR or alternate AAR shall request transfers of allowances in an ATS account.
 - b) The AAR or alternate AAR shall be responsible for all transactions and reports submitted to the ATS.
 - c) The alternative AAR shall have the same authority as the primary representative, however, all correspondence from the ATS administrator shall be directed to the primary AAR.
 - d) Pursuant to Env-A 2909.05 (f), PSNH - Merrimack Station shall replace an AAR by submitting a revised Account Certificate of Representation to the ATS administrator along with the information contained in Env-A 2909.05(b) and (c) and the name of the AAR who is being replaced.
6. End-of-Year Reconciliation
- a) Pursuant to Env-A 2904.01, *Limited Authorization*, PSNH - Merrimack Station shall, no later than January 30th of each calendar year, hold respective quantities of SO₂, NO_x, and CO₂ allowances in the PSNH - Merrimack Station's respective ATS accounts equal to or greater than the respective total SO₂, NO_x, and CO₂ emitted from PSNH - Merrimack Station during the previous year.
 - b) Pursuant to Env-A 2912.01, *Determination of Compliance*, monitored emissions data as reported by PSNH - Merrimack Station to the ETS administrator, and as adjusted by the administrator to be in accordance with Env-A 2910, *Emissions Monitoring*, combined with allowance allocations and transfers recorded in the ATS, shall provide the basis for a determination of compliance.
 - c) PSNH - Merrimack Station shall determine compliance and reconcile allowances by January 30th of each year beginning in 2008 pursuant to Env-A 2913.
 - d) Pursuant to Env-A 2912.02, *Request for Deduction of Allowances*, each year prior to January 30th, the AAR shall request the ATS administrator to deduct previous year allowances from the compliance account or overdraft account equivalent to the number of available allowances to cover the emissions during the previous year. The AAR shall identify the compliance account or overdraft account from which the deductions shall be made and shall identify the serial number of the allowances to be deducted. If the AAR does not specify a serial number, allowances useable for that compliance year shall be deducted in the order of their arrival into PSNH - Merrimack Station's account, with allocated allowances being deducted first, followed by the deduction of transferred allowances.
 - e) Pursuant to Env-A 2912.04, *Procurement of Additional Allowances*, if the emissions of PSNH - Merrimack Station in the previous year exceed the allowances in PSNH - Merrimack Station's compliance account and overdraft account, PSNH - Merrimack Station shall obtain additional allowances by January 30th so that the total number of allowances in PSNH - Merrimack Station's compliance account and overdraft account, including allowance transfers properly submitted to the ATS administrator by January

30th, equals or exceeds the previous year annual emissions rounded to the nearest whole ton.

7. Excess Emissions and Enforcement Provisions (Env-A 2914)

- a) If emissions from PSNH – Merrimack Station exceed allowances held in PSNH - Merrimack Station's compliance account or overdraft account for the year as of the allowance transfer deadline (January 30th), the Allowance Tracking System administrator shall automatically deduct allowances from PSNH – Merrimack Station's compliance account or overdraft account for the next year at a rate of three allowances for every one ton of excess emissions.
- b) In accordance with RSA 125-O:7, for purposes of enforcement of the Multiple Pollutant Annual Budget Trading and Banking Program, in determining the number of days of violation, any excess emissions for the year shall create a presumption that each day in the year of 365 days, constitutes a day in violation unless PSNH - Merrimack Station can demonstrate, through use of verifiable emissions data that a lesser number of days should be considered. In addition, each ton of excess emissions shall constitute a separate violation.

8. Conversion of Allowances to DERs

- a) Pursuant to Env-A 2904.01 (d), allowances shall not be considered offsets, although NO_x allowances which are not used to satisfy the requirements of Env-A 2900, and which are not banked, may be converted to non-ozone season NO_x DERs in accordance with Env-A 3100.
- b) Pursuant to Env-A 2904.02, *Conversion of Allowances to DERs or VERs* if PSNH - Merrimack Station converts unused NO_x allowances to NO_x DERs in accordance with Env-A 2904.01(d) and the procedures for DER generation pursuant to Env-A 3103, or converts unused CO₂ allowances to VERs in accordance with Env-A 3800, PSNH - Merrimack Station shall surrender those converted allowances as if they had been used for actual emissions.

9. Prohibition on Property Rights (Env-A 2904.04)

- a) Neither an allowance nor any future allocations, which are subject to modification by DES, shall constitute a security or other form of property.
- b) An allowance shall not be used prior to the year for which the allowance is allocated.

G. Discrete Emission Reduction Trading Program (Env-A 3100)

PSNH - Merrimack Station shall be allowed to bank DERs for PSNH - Merrimack Station's own future use or trade with others in accordance with Env-A 3100.

H. Carbon Dioxide (CO₂) Budget Trading Program (Env-A 4600) (State-only Enforceable)

1. CO₂ Allowance Requirements (Env-A 4605.01)
 - a. The Owner or Operator of each CO₂ budget source and each CO₂ budget unit at the source shall hold CO₂ allowances available for compliance deductions under Env-A 4605.04, as of the CO₂ allowance transfer deadline, in the source's compliance account, in an amount not less than the total CO₂ emissions from fossil fuel-fired generation for the control period from all CO₂ budget units at the source, as determined in accordance with Env-A 4605, Env-A 4607, Env-A 4609.18, and Condition VIII.H.1.c, below.
 - b. CO₂ allowances shall be held in, deducted from, or transferred among CO₂ allowance tracking system accounts in accordance with Env-A 4606, Env-A 4607, Env-A 4608, and Env-A 4700.
 - c. For the purpose of determining compliance with Env-A 4600, total tons of CO₂ emissions for a control period²⁶ shall be calculated as the sum of all recorded hourly emissions, or the tonnage equivalent of the recorded hourly emissions rates, in accordance with Env-A 4609, with any remaining fraction of a ton equal to or greater than 0.50 ton rounded up to equal one ton and any fraction of a ton less than 0.50 ton rounded down to equal zero tons.
2. CO₂ Allowance Limitations (Env-A 4605.02)
 - a. A CO₂ allowance shall be a limited authorization to emit one ton of CO₂ in accordance with the CO₂ budget trading program.
 - b. A CO₂ allowance shall not be deducted, in order to comply with the requirements of Env-A 4605.01(a), for a control period that ends prior to the year for which the CO₂ allowance was allocated.
 - c. A CO₂ offset allowance shall not be deducted, in order to comply with the requirements of Env-A 4605.01(a), beyond the applicable percent limitations set out in Env-A 4605.04(b).
 - d. Subject to Env-A 4605.02(e) and (f), no provision of the CO₂ budget trading program, the CO₂ budget permit application, or the CO₂ budget permit shall be construed to limit the authority of the department to terminate or limit such authorization.
 - e. A CO₂ allowance shall not constitute a property right.
3. Allowances Available for Compliance Deduction (Env-A 4605.04)
 - a. CO₂ allowances that meet the following criteria shall be available to be deducted for compliance with the requirements of Env-A 4605 for a control period:
 - i. For CO₂ allowances other than CO₂ offset allowances, the allowances are from allocation years that fall within a prior control period or the same control period for which the allowances will be deducted; and
 - ii. The CO₂ allowances are:

²⁶ Control period means compliance period as defined in New Hampshire RSA 125-O:20, IV.

1. Held in the CO₂ budget source's compliance account as of the CO₂ allowance transfer deadline for that control period; or
 2. Transferred into the compliance account by a CO₂ allowance transfer correctly submitted for recordation under Env-A 4608.01 by the CO₂ allowance transfer deadline for that control period;
- b. As provided in RSA 125-O:22, II, a CO₂ budget source may use offset allowances for up to 3.3 percent of its compliance obligation, subject to the following:
- i. If the Department determines that there has been a stage one trigger event, the CO₂ budget source may use up to 5 percent; and
 - ii. If the Department determines that there has been a stage 2 trigger event, the CO₂ budget source may use up to 10 percent.
- c. CO₂ allowances shall not be available for current compliance if the allowances were deducted for excess CO₂ emissions for a prior control period under Env-A 4605.08.
- d. Allowances deducted for the purpose of compliance shall not be available for any other purpose.
4. Excess CO₂ Emissions Requirements (Env-A 4605.07)
The Owner or Operator of a CO₂ budget source that has excess CO₂ emissions in any control period shall:
- a. Forfeit the CO₂ allowances required for deduction under Env-A 4605.08, provided CO₂ offset allowances shall not be used to cover any part of such excess CO₂ emissions; and
 - b. Pay any fine, penalty, or assessment or comply with any other remedy imposed under RSA 125-O:22, V.
5. Deductions for Excess CO₂ Emissions (Env-A 4605.08)
- a. As provided by RSA 125-O:22, V, the deduction of CO₂ allowances for excess CO₂ emissions shall be equal to 3 times the number of the source's excess CO₂ emissions.
 - b. Within 14 calendar days of receipt of notice from the regional organization²⁷ that a shortage exists, the source shall transfer sufficient allowances into its compliance account to cover the shortage.
 - c. No CO₂ offset allowances shall be deducted to account for the source's excess CO₂ emissions.
 - d. Any CO₂ allowance deduction required under 5.a, above, shall not affect the liability of the owner(s) and operator(s) of the CO₂ budget source or the CO₂ units at the source for any fine, penalty, or assessment, and shall not affect the obligation of the owner(s) and operator(s) to comply with any other remedy, for the same violation, as ordered under applicable state law.
6. Determination of Violations and Deduction of Allowances (Env-A 4605.11)

²⁷ Regional organization as defined in NH RSA 125-O:20, XIII

- a. For purposes of determining the number of days of violation, if a CO₂ budget source has excess CO₂ emissions for a control period, each day in the control period shall constitute a day of violation unless the owner(s) and operator(s) of the unit demonstrate that a lesser number of days should be considered; and
 - b. Each ton of excess CO₂ emissions shall constitute a separate violation.
7. Submission of CO₂ Allowance Transfers (Env-A 4608.01)
 - a. Any CO₂ AAR seeking recordation of a CO₂ allowance transfer shall submit the transfer request to the regional organization in accordance with Env-A 4608.01(b).

I. Monitoring/Testing Requirements

1. The Permittee is subject to the monitoring/testing requirements as contained in Table 9 below:

Table 9 – Monitoring/Testing Requirements					
Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
1.	MK1 & MK2	NOx Emissions	For MK1 and MK2, the owner or operator shall install, certify, operate and maintain, a NOx-diluent continuous emission monitoring system (consisting of a NOx pollutant concentration monitor and an O ₂ or CO ₂ diluent gas monitor) with an automated data acquisition and handling system for measuring and recording NOx concentration (in ppm) averaged on an hourly and 24-hour calendar day basis, O ₂ or CO ₂ concentration (in percent O ₂ or CO ₂) and NOx mass emission rate (in lb/mmBtu) averaged on an hourly, 24-hour calendar day, and annual basis for each unit. The owner or operator shall account for total NOx emissions, both NO and NO ₂ , either by monitoring for both NO and NO ₂ or by monitoring for NO only and adjusting the emissions data to account for NO ₂ . The owner or operator shall calculate hourly, quarterly, and annual NOx emission rates (in lb/mmBtu) by combining the NOx concentration (in ppm), diluent concentration (in percent CO ₂), and percent moisture according to the procedures in 40 CFR 75 Appendix F.	Continuously	Env-A 808.02 (a) (new) and 40 CFR 75 § 75.10(a)(2), § 75.12, and Env-A 1211.03 (f)
2.	MK1, MK2, MKCT1, & MKCT2	NOx Mass Emissions	For MK1, MK2, MKCT1, and MKCT2, the owner or operator shall calculate hourly NOx mass emissions (in lbs) by multiplying the hourly NOx emission rate (in lbs/mmBtu) by the hourly heat input rate (in mmBtu/hr) and the unit or stack operating time. The owner or operator shall also calculate quarterly and cumulative year-to-date NOx mass emissions and (in tons) by summing the hourly NOx mass emissions according to the procedures in 40 CFR 75 Appendix F Section 8.	Hourly, quarterly, and cumulative year-to-date	40 CFR 75 §75.71, and §75.72 and Env-A 3212 and Env-A 2910

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
3.	MK1, MK2, MKCT1, & MKCT2	Ozone Season NO _x Emission Rate and NO _x mass emissions	The owner or operator, when required, shall determine the ozone season NO _x emission rate (in lb/mmBtu) by dividing ozone season NO _x mass emissions (in lbs) by heat input. The owner or operator shall also calculate cumulative NO _x mass emissions for the ozone season (in tons) by summing the hourly NO _x mass emissions according to the procedures in 40 CFR 75 Appendix F Section 8.	During the ozone season	Env-A 3212.01 and 40 CFR 75 §75.75(b) and §75.72
4.	MKCT1 & MKCT2	CO ₂ , SO ₂ , opacity monitoring, recordkeeping, and reporting exemptions	The requirements of 40 CFR 75 Subpart H for CO ₂ , SO ₂ , opacity monitoring, recordkeeping, and reporting do not apply to units that are subject to a State or Federal NO _x mass emission reduction program only and are not affected units with an Acid Rain Program emission limitation (i.e., MKCT1 & MKCT2).	NA	40 CFR 75 §75.70(a)(2)
5.	MK1 & MK2	General CEM Requirements	<p>A) Pursuant to 40 CFR 75.5 (b), the Permittee must operate MK1 and MK2 in compliance with the requirements of 40 CFR 75.2 through 75.75 and 40 CFR 75 Appendices A through I.</p> <p>B) Pursuant to 40 CFR 75.5 (d), the Permittee shall account for all emissions of SO₂, NO_x, and CO₂ in accordance with 40 CFR 75.10 through 75.19.</p> <p>C) Pursuant to 40 CFR 75.5 (e), the Permittee shall not disrupt the continuous emission monitoring system or other approved emission monitoring method, and thereby not monitor or record SO₂, NO_x, and CO₂, except for periods of recertification, or periods when calibration, quality assurance, or maintenance is performed pursuant to 40 CFR 75.21 and 40 CFR 75 Appendix B.</p> <p>D) The CEMS shall meet the most stringent requirements of 40 CFR 75 and Env-A 808 (new).</p>	Continuously	40 CFR 75 §75.5 and Env-A 808 (new)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
6.	MK1 & MK2	CEMS Performance and Audit Requirements	The Permittee shall ensure that each CEMS meets the following requirements: A) Each CEMS meets equipment, installation, and performance specifications in 40 CFR 75 Appendix A; B) Each CEMS is maintained according to the quality assurance and quality control procedures in 40 CFR 75 Appendix B; and C) Each CEMS shall record SO ₂ and NO _x emissions in the appropriate units of measurement. D) The permittee shall comply with the most stringent CEM audit requirements contained in 40 CFR 75 and Env-A 808.07, <i>General Audit Requirements</i> , Env-A 808.08, <i>Audit Requirements for Gaseous CEM Systems</i> , and Env-A 808.09, <i>Audit Requirements for Opacity CEM Systems</i> .	As specified by regulation	40 CFR 75 §75.10(b) and Env-A 808.07, 808.08, and 808.09 and 40 CFR 75 Appendices A and B
7.	MK1 & MK2	Valid Averaging Periods for Gaseous and Opacity CEM Systems	The number of hours of valid CEM data required for determining a valid averaging period for the different emission standard periods shall be: A) For a 3-hour emission standard period, 2 hours of valid data; B) For a 4-hour emission standard period, 3 hours of valid data; C) For an 8-hour emission standard period, 6 hours of valid data; D) For a 12-hour emission standard period, 9 hours of valid data, and E) For a 24-hour emission standard period, 18 hours of valid data.	As applicable	Env-A 808.14 (formerly Env-A 805.09)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
8.	MK1 & MK2	SO ₂ Emissions	The owner or operator shall install, certify, operate and maintain, an SO ₂ CEMS automated data acquisition and handling system for measuring and recording SO ₂ concentration (in ppm) averaged on an hourly and 24-hour calendar day basis, volumetric gas flow (in scfh), and SO ₂ mass emissions (in lb/hr averaged over one hour and each 24-hour calendar day, and tons/consecutive 12-month period and tons/calendar year) for each unit. The owner or operator shall also measure and record the SO ₂ emission rate (in lb/mmBtu) averaged over each 24-hour calendar day. The owner or operator shall demonstrate compliance with the State Acid Rain Program emission caps by using the CEMS data.	Continuously	Env-A 808.02 (a)(1) (new) and 40 CFR 75 §75.10 (a)(1)
9	MK1 & MK2	CO ₂ Emissions	The owner or operator shall install, certify, operate and maintain, a CO ₂ CEMS automated data acquisition and handling system. The owner or operator shall measure and record CO ₂ emissions in lb/hr over each 24-hour calendar day and CO ₂ concentration in percent on an hourly average and over each 24-hour calendar day. The owner or operator shall use applicable procedures specified in 40 CFR 75 Appendix G to calculate CO ₂ emissions. Please note that equation G-1 of 40 CFR 75 Appendix G shall not be used to determine CO ₂ emissions under Env-A 4609.	Continuously	40 CFR 75 §75.10(a)(3), 40 CFR 75 Appendix G, & Env-A 4609
10.	MK1 & MK2	Heat input rate measurement	The owner or operator shall determine the heat input rate (in mmBtu/hr) to each unit for every hour or part of an hour any fuel is combusted following the procedures in 40 CFR 75 Appendix F.	Hourly	40 CFR 75 §75.10(c) Federally Enforceable & Env-A 2910.02
11.	MK1 & MK2	Stack Volumetric Flow Rate	The owner or operator shall install, certify, operate and maintain, a CEMS automated data acquisition and handling system to measure and record stack volumetric flow rate (in kscfm) on an hourly average and over each 24-hour calendar day.	Continuously	40 CFR 75 §75.10(a) & Env-A 2910.02

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
12.	MK1 & MK2	Stack Volumetric Flow Measuring Device	The owner or operator shall meet the following requirements for the stack volumetric flow measuring device: A) All differential pressure flow monitors shall have an automatic blow-back purge system installed and in wet conditions, shall have the capability for drainage of the sensing lines; and B) The stack flow monitoring system shall have the capability for manual calibration of the transducer while the system is on-line and for a zero check.	Continuously	Env-A 808.03(d)
13.	MK1 & MK2	Opacity	The owner or operator shall install, certify, operate and maintain, a continuous opacity monitoring system with the automated data acquisition and handling system for measuring and recording the opacity of emissions (in percent opacity) for each 6-minute period for each unit. As necessary, the owner or operator shall also use US EPA Method 9 to estimate opacity.	Continuously	40 CFR 75 §75.10(a)(4) and Env-A 805.02 (old) and Env-A 808.02 (a) (new) and 807.02 (new)
14.	MK1, MK2, MKCT1, & MKCT2	Net Electrical Output	The owner or operator shall monitor and/or calculate net electrical output.	Annually	Env-A 2910.02, Env-A 3207.04, and 40 CFR 75
15.	MK1, MK2, MKCT1, & MKCT2	Ozone Season Heat Input	The owner or operator shall calculate ozone season heat input for purposes of providing data needed for determining allocations by summing each unit's hourly heat input determined according to the procedures in 40 CFR 75 for all hours in which the unit operated during the ozone season	Hourly during ozone season	Env-A 3212.01 and 40 CFR 75 §75.75(a)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
16.	MK1 & MK2	CEM Hourly Operating Requirements & Valid Hour of CEM Data	<p>Pursuant to Env-A 808.01, 808.03, and 40 CFR 75.10(d), the Permittee shall ensure that the CEMS and components meet the following hourly operating requirements:</p> <p>A) The Permittee shall ensure that each CEM is capable of completing a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute interval pursuant to Env-A 40 CFR 75.10(d) and pursuant to Env-A 808.03(c)(2) for each successive 5-minute period for gaseous emissions, unless a longer time period is approved in accordance with Env-A 809</p> <p>B) The Permittee shall reduce all SO₂ concentrations, volumetric flow, SO₂ mass emissions, CO₂ concentration, CO₂ mass emissions (if applicable), NO_x concentration, and NO_x emission rate data collected by the monitors to hourly averages.</p> <p>C) The Permittee shall use all valid measurements or data points collected during an hour to calculate the hourly averages. All data points collected during an hour shall be, to the extent practicable, evenly spaced over the hour.</p> <p>D) Failure of an SO₂ or CO₂ pollutant concentration monitor, NO_x concentration monitor, flow monitor, or NO_x-diluent CEMS to acquire the minimum number of data points for calculation of an hourly average shall result in the failure to obtain a valid hour of data and the loss of such component data for the entire hour.</p> <p>E) For a NO_x-diluent monitoring system, an hourly average NO_x emission rate in lb/mmBtu is valid only if the minimum number of data points is acquired by both the NO_x pollutant concentration monitor and the diluent monitor (CO₂).</p> <p>F) If a valid hour of data is not obtained, the Permittee shall estimate and record emissions, moisture, or flow data for the missing hour by means of the automated data acquisition and handling system, in accordance with the applicable procedure for missing data.</p>	Hourly	40 CFR 75 §75.10(d) and Env-A 808.01(i) and 808.03

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
16.	MK1 & MK2	CEM Hourly Operating Requirements & Valid Hour of CEM Data (continued)	<p>G) Pursuant to Env-A 808.01(i), a valid hour of CEM emissions data means a minimum of 42 minutes of CEM readings taken in any calendar hour, during which the CEM is not in an out of control period and the facility is in operation.²⁸</p> <p>H) Pursuant to Env-A 808.03(a), the owner or operator shall average and record the CEM data for gaseous emissions for each calendar hour.</p> <p>I) Pursuant to Env-A 808.03(c)(1), all CEM systems shall include a means to display instantaneous values of percent opacity and gaseous emission concentrations.</p>	Hourly	40 CFR 75 §75.10(d) and Env-A 808.01(i) and 808.03

²⁸ The applicable requirements in 40 CFR 75 are less stringent than the applicable requirements in Env-A 808. 40 CFR 75 requires hourly averages to be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. 40 CFR 75 allows an hourly average to be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour) if data are unavailable as a result of the performance of calibration, quality assurance, or preventive maintenance activities pursuant to 40 CFR 75.21 and 40 CFR Appendix B or backups of data from the data acquisition and handling system, or recertification, pursuant to 40 CFR 75.20.

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
17.	MK1 & MK2	COMS Hourly Operating Requirements	<p>Pursuant to 40 CFR 75.10(d), the Permittee shall ensure that each COMS and components meet the following hourly operating requirements:</p> <p>A) The Permittee shall ensure that each continuous opacity monitoring system is capable of completing a minimum of one cycle of sampling and analyzing (and recording pursuant to Env-A 808.03(c)(2) unless a longer time period is approved in accordance with Env-A 809) for each successive 10-second period and one cycle of data recording for each successive 6-minute period.</p> <p>B) The Permittee shall reduce all opacity data to 6-minute averages calculated in accordance with the provisions of 40 CFR 51 Appendix M, except where the SIP or operating permit requires a different averaging period, in which case the State requirement shall satisfy this Acid Rain Program requirement as shown below.</p> <p>C) Pursuant to Env-A 808.03(b)(1), the owner or operator shall average the opacity data to result in consecutive, non-overlapping 6-minute averages; and</p> <p>D) Pursuant to Env-A 808.03(b)(2), for units subject to the Env-A 2002.04(b) exemption, the total number of minutes in any 8-hour period where the opacity, as averaged in non-overlapping 6-minute periods, exceeds the applicable opacity standard.</p> <p>E) Pursuant to Env-A 808.03(c)(1), all CEM systems shall include a means to display instantaneous values of percent opacity and gaseous emission concentrations.</p>	Sampling for successive 10-second period and recording for successive 6-minute period	40 CFR 75 §75.10(d) and Env-A 808.03(b) and (c)
18.	MK1 & MK2	Minimum measurement capability requirement	The Permittee shall ensure that each CEMS is capable of accurately measuring, recording, and reporting data, and shall not incur an exceedance of the full scale range, except as provided in 40 CFR 75 Appendix A Sections 2.1.1.5, 2.1.2.5, and 2.1.4.3.	As specified by regulation	40 CFR 75 §75.10(f)
19.	MK1 & MK2	Specific provisions for monitoring SO ₂ emissions (SO ₂ emissions and flow monitors)	The owner or operator shall meet the general operating requirements in 40 CFR 75.10 for an SO ₂ continuous emission monitoring system and a flow monitoring system.	As specified by regulation	40 CFR 75 §75.11(a), (b)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
20.	MK1 & MK2	Specific provisions for monitoring NO _x emissions – Coal-fired Units	<p>A) Pursuant to 40 CFR 75.12, 75.71, and 75.72 and Env-A 3212, the Permittee shall meet the specific provisions for NO_x-diluent CEMS, including the following:</p> <ol style="list-style-type: none"> 1) Meet general operating requirements in 40 CFR 75.10 for a NO_x continuous emission monitoring system. The diluent gas monitor in the NO_x CEMS may measure either O₂ or CO₂ concentration in the flue gases. 2) Comply with moisture correction procedures according to 40 CFR 75.12(b) 3) Comply with NO_x emission rate procedures contained in 40 CFR 75.12(c). <p>B) The Permittee shall meet the annual and ozone season monitoring requirements according to 40 CFR 75.74, as applicable.</p>	Continuously	40 CFR 75 §75.12, 75.71, and 75.72 and Env-A 3212
21.	MKCT1 & MKCT2	NO _x Mass Emissions - Specific Provisions for Monitoring NO _x Emissions for Alternative Monitoring System	The owner or operator shall meet the requirements of 40 CFR 75.12 including using the procedures of 40 CFR 75 Appendix E for estimating hourly NO _x emission rate, using the procedures of 40 CFR Appendix D for determining hourly heat input, except for the heat input apportionment provisions of 40 CFR 75 Appendix D Section 2.1.2 to meet the NO _x mass reporting provisions. If in the years after certification of the monitoring system, a unit's operation exceed a capacity factor of 20 percent in any calendar year or exceed a capacity factor of 10.0 percent averaged over three years, or exceed a capacity factor of 20.0 percent in any ozone season or exceed an ozone season capacity factor of 10.0 percent averaged over three years, the owner or operator shall install, certify, and operate a NO _x CEMS and also meet the requirements of 40 CFR 75.71(c) no later than December 31 of the following calendar year.	Hourly	40 CFR 75 Appendix E Section 1.1 and 40 CFR 75 §75.12(d)(2) and 75.71(d)
22.	MK1 & MK2	Specific provisions for monitoring CO ₂ emissions	The owner or operator shall comply with the applicable CO ₂ monitoring provisions of 40 CFR 75 §75.13(a), (b), and (c) for the CO ₂ CEMS and flow monitoring systems.	Continuously	40 CFR 75 §75.13(a)-(c)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
23.	MK1 & MK2	Specific provisions for monitoring opacity	Pursuant to 40 CFR 75.14, the continuous opacity monitoring and recording system shall meet all the design, installation, equipment, and performance specifications of 40 CFR 60, Appendix B, Performance Specification 1, and all the operational and quality assurance requirements of Env-A 808 (new).	Continuously	40 CFR 75 §75.14 and Env-A 808 (new)
24.	MK1 & MK2	Reference Test Methods for Certification or Re-certification of CEMS or COMS	The Permittee shall use the reference test method listed in 40 CFR 75.22 and included in Appendix A to 40 CFR 60 to conduct monitoring system tests for certification or recertification of CEMS and expected monitoring systems under 40 CFR 75 Appendix E and quality assurance and quality control procedures.	During certification and recertification tests	40 CFR 75 §75.22

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
25.	MK1 & MK2	Out of control periods	<p>A) Pursuant to 40 CFR 75.21(e)(2), whenever a CEMS or COMS fails a quality assurance audit or any other audit, the system is out-of-control, and the Permittee shall follow the procedures for out-of-control periods in 40 CFR 75.24.</p> <p>B) Pursuant to Env-A 3212.10 and 2910.06, whenever any monitoring system fails to meet the quality assurance requirements of 40 CFR 75 Appendix B, the permittee shall substitute the data using the applicable procedures in 40 CFR 75, Subpart D, Appendix D or E.</p> <p>C) Pursuant to 75.24, if an out-of-control period occurs to a monitor or CEMS, the owner or operator shall take corrective action and repeat the tests applicable to the out of control parameter as described in 40 CFR 75 Appendix B.</p> <p>1) For daily calibration error tests, an out of control period occurs when the calibration error of a pollutant concentration monitor exceeds 5.0% based upon the span value, the calibration error of a diluent gas monitor exceeds 1.0% O₂ or CO₂, or the calibration error of a flow monitor exceeds 6.0% based upon the span value, which is twice the applicable specification in 40 CFR 75 Appendix A.</p> <p>2) For quarterly linearity checks, an out of control period occurs when the error in linearity at any of the three gas concentrations (low, mid-range, and high) exceeds the applicable specification in 40 CFR 75 Appendix A.</p> <p>3) For relative accuracy test audits (RATAs), cylinder gas audit (CGAs), and relative accuracy audits (RAAs), an out of control period occurs when the sampling is completed and the CEMS fails the accuracy criteria until successful completion of the same audit after corrective action has occurred.</p>	As specified by regulation	40 CFR 75 §75.21(e)(2) and 75.24 and Env-A 3212.10 and 2910.06 and 808.01(g)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
25.	MK1 & MK2	Out of control periods (continued)	<p>D) Pursuant to Env-A 3212.10, whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any system or component should not have been certified or recertified because it did not meet a particular performance specification or other requirement pursuant to Env-A 800 or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the department shall issue a notice of disapproval of the certification status of such system or component.</p> <p>E) For the purposes of this section, an audit shall be either a field audit or an audit of any information submitted to the department or the administrator.</p> <p>F) The data measured and recorded by the system or component shall not be considered valid quality-assured data from the date of issuance of the notification of the disapproval of certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests in accordance with Env-A 3212.07(t).</p> <p>G) The owner or operator shall follow the initial certification or recertification procedures for each disapproved system.</p>	As specified by regulation	40 CFR 75 §75.21(e)(2) and 75.24 and Env-A 3212.10 and 2910.06 and 808.01(g)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
26.	MK1 & MK2	Out of Control Periods for Opacity	<p>Out of control period for a CEMS measuring opacity is as follows:</p> <p>A) The time period beginning with the completion of the daily calibration drift (CD) check where the CD exceeds 2% opacity for 5 consecutive days, and ending with the CD check after corrective action has occurred that results in the performance specification drift limits being met;</p> <p>B) The time period beginning with the completion of a daily CD check preceding the daily CD check that results in the CD being greater than 5% opacity and ending with the CD check after corrective action has occurred that results in the performance specification drift limits being met; or</p> <p>C) The time period beginning with the completion of a quarterly opacity audit where the CEMS fails the calibration error test as specified in 40 CFR 60, Appendix B, Specification 1 and ending with successful completion of the same audit where the CEMS passes the calibration error test established after corrective action has occurred.</p>	As specified by regulation	Env-A 808.01(g)(2)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
27.	MK1, MK2, MKCT1 & MKCT2	Data Availability and Missing Data Substitution Procedures	<p>A) The Permittee shall follow the procedures in 40 CFR 75.30 through 75.37, 75.70(f), 75.74, and 40 CFR 75 Appendix E when a valid, quality-assured hour of data is not measured or recorded.</p> <p>B) For MKCT1 & MKCT2, the Permittee shall provide substitute data pursuant to 40 CFR 75.74 and 40 CFR 75 Appendix E Section 2.5, when the QA/QC control parameters are exceeded or missing.</p> <p>C) Pursuant to Env-A 808.02(c)(2), the permittee shall comply with the minimum percentage data availability requirements pursuant to Env-A 808.10(a)-(d) to meet the requirements of Env-A 3200, <i>NOx Budget Program</i>.</p> <p>D) Pursuant to Env-A 808.10, if the permittee cannot meet the percentage data availability requirements, the permittee shall also follow the provisions of Env-A 808.10(e) – (g).</p> <p>E) Pursuant to 40 CFR 75.24(e), if COMS is out of control, the permittee shall follow the data availability requirements of Env-A 808.10.</p>	As specified by regulation	40 CFR 75 §75.30 through 75.37 and 75.50(f) and 75.24(e) and 75.74 and 40 CFR 75 Appendix E Section 2.5 & Env-A 808.10 & 808.02(c)(2)
28.	MK1, MK2, MKCT1 & MKCT2	NOx Mass Emissions - General Provisions	<p>A) Pursuant to Env-A 3200, <i>NOx Budget Program</i>, the permittee shall comply with the provisions of 40 CFR 75 Subparts A, C, D, E, F, and G and Appendices A through G applicable to NOx concentration, flow rate, NOx emission rate and heat input, as set forth and referenced in Subpart H.</p> <p>B) The requirements of Subpart H for CO₂, SO₂, opacity monitoring, recordkeeping, and reporting do not apply to units that are subject to a State or federal NOx mass emission reduction program only and are not affected units with an Acid Rain Program emission limitation (i.e., MKCT1 & MKCT2).</p>	As specified by regulation	Env-3212.01 and 40 CFR 75 §75.70(a)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
29.	MK1, MK2, MKCT1, MKCT2	NOx Mass Emissions Provisions - Prohibitions	<p>A) No owner or operator of an affected unit shall use any alternative monitoring system, reference method, or any other alternative for the required CEMS without approval through petition process in § 75.70(h). (MKCT1 and MKCT2 did get approval of use of Appendix E.)</p> <p>B) No owner or operator of an affected unit shall operate the unit so as to discharge NOx emissions without accounting for all emissions in accordance with the provisions of Subpart H, except as provided in § 75.74.</p> <p>C) No owner or operator of an affected unit shall disrupt the CEMS or any other approved emission monitoring method, and thereby avoid monitoring and recording NOx mass emissions, except for periods of re-certification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the provisions of Subpart H applicable to the monitoring systems under § 75.71, except as provided in § 75.74.</p> <p>D) No owner or operator of an affected unit shall retire or permanently discontinue use of the CEMS, or any other approved emission monitoring system except under one of the following circumstances:</p> <ol style="list-style-type: none"> 1) During period that the unit is covered by a retired unit exemption that is in effect under the State or federal NOx mass emission reduction program that adopts the requirements of Subpart H; 2) The owner or operator is monitoring NOx emissions from the affected unit with another certified monitoring system approved, in accordance with the provisions of § 75.70(d); or 3) The designated representative submits notification of the date of certification testing of a replacement monitoring system in accordance with § 75.61. 	Continuously	40 CFR 75 §75.70(c)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
30.	MK1, MK2, MKCT1, MKCT2	CEMS and COMS and Alternative Monitoring Certification	Pursuant to 40 CFR 75.20 and 40 CFR 75.70(d) and Env-A 3212.07 and Env-A 3212.10, the Permittee shall recertify the CEMS and COMS and alternative monitoring system whenever the Permittee makes a replacement, modification, or change to the systems or to the facility that could significantly affect the ability of the systems to accurately measure and record the requisite data. The Permittee must submit an application for recertification of the monitoring system to EPA and DES, except pursuant to Env-A 3212.11, notifications for MKCT1 & MKCT2 shall only be sent to DES.	Whenever the Permittee makes a replacement, modification, or change to the systems or to the facility that could significantly affect the ability of the systems to accurately measure and record the requisite data	40 CFR 75 §75.20, 75.70(d), and 40 CFR 75 Appendix E Section 1.2 and Env-A 809, 3212.02, 3212.06, 3212.07, 3212.09, 3212.10 and 2910.04
31.	MK1 & MK2	QA/QC Requirements	<p>A) Pursuant to 40 CFR 75.21 (a)(1) and 40 CFR 75.70, the Permittee shall operate, maintain, and calibrate each CEMS according to the quality assurance and quality control procedures in 40 CFR 75 Appendix B.</p> <p>B) Pursuant to 40 CFR 75.21(b), the Permittee shall operate, calibrate, and maintain each COMS according to the procedures specified in the SIP, pursuant to 40 CFR 51 Appendix M.</p> <p>C) Pursuant to 40 CFR 75.21(c), the Permittee shall ensure that all calibration gases used to quality assure the operation of the instrumentation shall meet the definition in 40 CFR 72.2.</p> <p>D) Pursuant to 40 CFR 75.21(d) and (e), the Permittee shall comply with the provisions concerning consequences of audits and audit decertification.</p> <p>E) Within and prior to the ozone season, the Permittee shall meet the quality assurance requirements contained in 40 CFR 75.74, as applicable.</p>	As specified by regulation	40 CFR 75 §75.21, 75.70, and 75.74
32.	MKCT1 & MKCT2	QA/QC Requirements for Alternative Monitoring Systems	The owner or operator shall comply with the QA/QC procedures of 40 CFR 75 Appendix E and 40 CFR 75.74(c), as applicable. Pursuant to 40 CFR 75.74(b), the owner or operator may choose whether to meet the QA/QC requirements on an annual basis or an ozone season basis.	Annually or ozone season basis	40 CFR 75 §75.70(e) and 40 CFR 75 Appendix E and 40 CFR 75 §75.74(b) and (c)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
33.	MKCT1, MKCT2, MK1 & MK2	NOx Mass Emissions – Petitions for Alternatives	The owner or operator may submit a petition to DES and EPA requesting an alternative to any requirement of 40 CFR 75 Subpart H. Such a petition shall meet the requirements of § 75.66 and any additional requirements established by Env-A 3200 or other applicable State or Federal NOx mass emission reduction program that adopts the requirements of 40 CFR 75 Subpart H. Pursuant to 40 CFR 75.70(h)(3)(i), the owner or operator filed a petition for an alternate monitoring method for MKCT1 and MKCT2 using Appendix E, which was approved by the USEPA and DES.	Upon request by permittee	40 CFR 75 §75.70(h) and 40 CFR 75 Subpart E and 40 CFR 75 Appendix E & Env-A 3212.09
34.	MKCT1, MKCT2	NOx Mass Emissions- Alternative Monitoring System	The owner or operator shall comply with the provisions of 40 CFR 75 Appendix E and Env-A 3212.09 as an alternative to continuous emission monitoring system requirements.	During the ozone season	40 CFR 75 Appendix E and Env-A 3212.09
35.	MKCT1, MKCT2	NOx Mass Emissions – NOx Emission Rate and Heat Input– Oil-fired Peaking Units	The owner or operator of an affected unit that qualifies as a peaking unit and as either gas-fired or oil-fired shall either: A) Meet the requirements of 40 CFR 75.71(c); or B) Use the procedures in 40 CFR 75 Appendix D for determining hourly heat input and the procedure specified in 40 CFR 75 Appendix E for estimating hourly NOx emission rate. The heat input apportionment provisions in Section 2.1.2 of Appendix D shall not be used to meet the NOx mass reporting provisions of Subpart H. In addition, if after certification of an excepted monitoring system under Appendix E, the operation of a unit that reports emissions on an annual basis under 40 CFR 75.74(a) exceeds a capacity factor of 20.0 percent in any calendar year or exceeds an annual capacity factor of 10.0 percent averaged over 3 years, or the operation of a unit that reports emissions on an ozone season basis under 40 CFR 75.74(b) exceeds a capacity factor of 20.0 percent in any ozone season or exceeds an ozone season capacity factor of 10.0 percent averaged over three years, the owner or operator shall meet the requirements of 40 CFR 75.71(c) or, if applicable 40 CFR 75.71(e) by no later than December 31 of the following calendar year.	As specified by regulation	40 CFR 75 §75.71(d)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
36.	MK1, MK2, MKCT1, MKCT2	NO _x Mass Emissions – Annual and Ozone Season Monitoring	The owner or operator shall meet the requirements of 40 CFR 75 Subpart H during the entire calendar year for MK1 and MK2 and on an ozone season basis except as specified for MKCT1 & MKCT2.	During the calendar year for MK1 and MK2 and during the ozone season for MKCT1 & MKCT2	40 CFR 75 §75.74(a) and (b)
37.	MKCT1 & MKCT2	NO _x RACT Compliance Testing	The owner or operator shall conduct stack testing using US EPA Method 20 to determine the NO _x emissions. The owner or operator shall calculate and record the NO _x emission rate in lb/MMBtu on a 24-hour calendar average, lb/hr on a 24-hour calendar average, and tons/consecutive 12-month period using the stack test results and operating hours.	Once every 3 years and upon written request by DES and/or EPA	Env-A 1211.13(f) Env-A 803.02(c) (formerly Env-A 1211.21) and 40 CFR 70.6 (a)(3)(i)(B)
38.	MK1 & MK2	Ammonia slip testing	The owner or operator shall conduct stack testing at a NO _x emission rate, in lb/MMBtu, as specified by DES, using a DES-approved method to determine the ammonia slip.	At least once every 5 years or upon request by DES and/or EPA	40 CFR 70.6 (a)(3)(i)(B)
39.	MK1-PC3 & MK2-PC6	Ammonia Consumption	The owner or operator shall track ammonia consumption daily using an ammonia flow meter installed with the SCR systems. Daily records shall be submitted to DES in the quarterly reports in accordance with Table 11, Item 6. The owner or operator shall keep monthly total ammonia consumption records for submittal to DES with the annual emissions report due by April 15 th of the following year.	Daily and monthly	Temporary Permits FP-T-0054 & TP-B-0462
40.	MK1-PC1, MK1-PC2, MK2-PC4 & MK2-PC5	# of Fields Out of Service for each ESP unit	The owner or operator shall continuously monitor and record the total number of fields out of service for each electrostatic precipitator. Report any occurrences of fields out of service to DES in accordance with Table 11, Items 18 and 19.	Continuously	40 CFR 70.6(a)(3)(i)(B)
41.	MK1-PC1, MK1-PC2, MK2-PC4 & MK2-PC5	Inlet gas temperature to each ESP	The owner or operator shall continuously measure and record the inlet gas temperature to the ESP using a DES-approved temperature monitoring system.	Continuously	40 CFR 70.6 (a)(3)(i)(B)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
42.	Facility Wide	Sulfur Content of Liquid Fuels	Conduct testing in accordance with appropriate ASTM test methods or retain delivery tickets or other documentation in accordance with Table 10, Item #4 in order to demonstrate compliance with the sulfur content limitation provisions specified in this permit for liquid fuels.	For each delivery of liquid fuel to the facility	Env-A 806.02, Env-A 806.05, 40 CFR 60 Subpart Dc §60.42c(h)(1), §60.48c(f)(1), & §60.44c(h)
43.	MK1 & MK2	Sulfur Content of Bituminous Coal	Documentation from the fuel supplier or testing in accordance with appropriate ASTM test methods that certify the weight-percent of sulfur for each delivery of bituminous coal	Each delivery of fuel	Env-A 806.04
44.	MKCT1, MKCT2, MKSCC, MKEG, MKEB	Opacity	USEPA Method 9	As necessary as determined by PSNH, DES, and/or EPA	40 CFR 70.6 (a)(3)(i)(B)
45.	MKEG	Operating Hours	The owner or operator shall maintain a log of the operating hours of the emergency generator.	Continuously	40 CFR 70.6 (a)(3)(i)(B)
46.	MKPCC & MKSCC	Coal Throughput	The owner or operator shall maintain records of the monthly coal received and coal burned (coal throughput).	Monthly	40 CFR 70.6 (a)(3)(i)(B) & State Permits to Operate No. PO-BP-2416 & 2417
47.	MK1 & MK2	Coal Feed Rate - Periodic Monitoring	E Belt scales for MK1 and MK2 shall be verified or calibrated once per year.	Annually	40 CFR 70.6 (a)(3)(i)(B)
48.	MK1 & MK2	TSP Testing	The owner or operator shall conduct stack testing using US EPA Methods 1-5 or 1-4 and 17 or other method approved by DES to determine the TSP emissions. The owner or operator shall calculate and record the TSP emission rate in lb/MMBtu on a 24-hour calendar day average and tons/consecutive 12-month period using stack test results and operating hours. The owner or operator may use other EPA-approved emission calculating methods to calculate TSP emissions.	Testing at least once every 5 years and upon request by DES and/or EPA	Env-A 802 & 40 CFR 70.6 (a)(3)(i)(B)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
49.	MK1 & MK2	PM ₁₀ Testing	The owner or operator shall conduct stack testing using US EPA Method 201a and 202, or other method approved by DES to determine PM ₁₀ emissions. The owner or operator shall calculate and record the PM ₁₀ emission rate in tons/consecutive 12-month period using stack test results and operating hours. The owner or operator may use other EPA-approved emission calculating methods to calculate PM ₁₀ emissions.	Testing at least once every 5 years and upon request by DES and/or EPA	Env-A 802 & 40 CFR 70.6 (a)(3)(i)(B)
50.	MKEB	Performance Test	Each time the owner or operator brings an Emergency Boiler into the facility for operation, it is required to conduct an initial performance test as required by 40 CFR 60.8 for opacity, within 60 days of achieving maximum production rate or within 180 days of initial startup. Method 9 (6-minute average of 24 observations) shall be used for determining the opacity of stack emissions. Testing will be conducted at the maximum permitted operating rate, 520 gal/hr while firing No. 2 fuel oil, or 701 gal/hr while firing on-road low sulfur diesel fuel. A DES representative must be present to observe the testing.	Each time an Emergency Boiler is installed	40 CFR 60 Subpart Dc §60.45c(a) & Env-A 802
51.	MKEB	Fuel flow meter, recorder, & totalizer	A) Fuel Consumption: A fuel oil flow meter (gal/hr) and chart recorder and totalizer (gal/day) shall be installed and continuously operated on the fuel oil inlet line to the Emergency Boiler to measure the instantaneous fuel oil consumption and daily total consumption for the Emergency Boiler. B) Calibration or verification: The owner or operator shall calibrate or verify these devices in accordance with the manufacturers and or supplier's recommendations.	Continuously	Temporary Permit TP-B-0490
52.	Facility wide	Inventories of Regulated Substances	The owner or operator shall monitor the quantity of regulated substances to ensure that the facility is in compliance with the requirements of 40 CFR 68.	Continuously	40 CFR 68 and 1990 CAA Section 112(r)(1)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
53.	MK1 & MK2	Mercury Monitoring	Prior to the availability and operation of continuous emissions monitoring (CEM) systems for mercury, stack tests or another methodology approved by the Department shall be conducted twice per year to determine mercury emissions levels from each of the boilers. Any stack tests performed shall employ a federally recognized and approved methodology, proposed by the owner and employing a test protocol approved by the Department. When a federal performance specification takes affect, and a mercury CEM system capable of meeting the federal specifications becomes available, a mercury CEM system, approved by the department shall be installed in MK1 & MK2 and at other affected sources as deemed appropriate by the Department.	Twice per year	Env-A 802 & RSA 125-O:15 (State-Only Enforceable)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
54.	MK1 & MK2	Baseline Mercury Input	<p>Baseline mercury input shall be determined as follows:</p> <p>A) No later than August 1, 2006, and continuing for 12 months thereafter, a representative monthly sample of the coal used traditionally (not to include trial or test coal blends) by each affected source shall be collected from each of the units identified in b. below and analyzed to determine the average mercury content of the fuel for each unit expressed in pounds of mercury input per ton of coal combusted at each affected source. The mercury content of the coal derived from these analyses for each affected source shall be multiplied by the average annual throughput of coal for the period 2003, 2004, and 2005 (average tons of coal combusted per year) for each respective affected source to yield the average pounds of mercury input per year into each affected source. The sum of these annual input pound averages from each affected source shall equal the baseline mercury input.</p> <p>B) Determination of the mercury content of the coal shall follow appropriate ASTM testing procedures (ASTM D3684-01). For purposes of baseline mercury input determination, coal sampling shall occur at Merrimack Unit 1 and Unit 2, and at either Schiller Unit 4 or Unit 6, which shall serve to represent all Schiller units. At least 4 of the samples taken from each of these units shall correspond with the stack testing done at each of these units under RSA 125-O:14,II.</p>	As specified	RSA 125-O:14,I. (State-Only Enforceable)

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
55.	MK1 & MK2	Baseline Mercury Emissions	<p>Baseline mercury emissions shall be determined as follows:</p> <p>A) A minimum of 4 stack tests shall be conducted at each of the units specified in b. below, using appropriate testing protocols, to determine statistically valid average mercury emissions rate for each unit expressed in pounds of mercury emitted per ton of coal combusted at each affected source. The rate for each affected source shall be multiplied by the average annual coal throughput for the period 2003, 2004, and 2005 (average tons of coal combusted per year) for each respective affected source to yield the average pounds of mercury emitted per year from each affected source. The sum of these annual emitted pound averages from each affected source shall equal the baseline mercury emissions.</p> <p>B) For purposes of the baseline mercury emissions determination, stack tests shall be conducted at Merrimack Unit 1 and Unit 2, and at either Schiller Unit 4 or Unit 6, which shall serve to represent all Schiller Units. If mercury emissions improvements are made or are being made during the testing period, the stack tests shall be conducted without the improvements running at the time of the tests.</p>	As specified	RSA 125-O:14,II. (State-Only Enforceable)
56.	MK1 & MK2	Mercury Emission Monitoring	<p>A) Prior to the availability and operation of CEMS, and subsequent to the baseline emissions testing under RSA 125-O:14, II, stack tests or another methodology approved by DES shall be conducted twice per year to determine mercury emissions levels from the affected sources.</p> <p>B) Any stack tests performed shall employ a federally recognized and approved methodology, proposed by the Owner and employing a test protocol approved by DES.</p> <p>When a federal performance specification takes effect and a mercury CEMS capable of meeting the federal specifications becomes available, a mercury CEMS, approved by DES, shall be installed on STMK3 as deemed appropriate by DES.</p>	Twice per year or until a mercury CEMS is in operation and approved by DES	RSA 125-O:15

Table 9 – Monitoring/Testing Requirements

Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
57.	MK1 & MK2	SO ₂ , NO _x , CO, PM, VOCs Emissions (tons/month and tons/consecutive 12-month period)	Pursuant to the 40 CFR 52.21 (b)(21)(v) (dated July 1, 2002) ²⁹ , for an electric utility steam generating unit (other than a new unit or the replacement of an existing unit), actual SO ₂ , NO _x , CO, PM, VOC emissions of the unit following the physical or operational change shall equal the representative actual annual emissions of the unit, provided PSNH maintains and submits to DES on an annual basis for a period of 5 years from the date the unit resumes regular operation, information demonstrating that the physical or operational change did not result in an emissions increase. A longer period, not to exceed 10 years, may be required by DES, if it determines such a period to be more representative of normal source post-change operations. Pursuant to 40 CFR 52.21(b)(33) (dated July 1, 2002), representative actual annual emission means the average rate, in tons per year, at which the source is projected to emit a pollutant for the two-year period after the physical change or change in the method of operation of a unit (or a different consecutive two-year period within 10 years after that change, where DES determines that such period is more representative of normal source operations), considering the effect any such change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions, DES shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under Title IV of the CAA; and exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is	Monthly	40 CFR 70.6 (a)(3)(i)(B) and 40 CFR 52.21 (b)(21) and (33), dated July 1, 2002

²⁹ See the letter dated January 31, 2008 from William H. Smagula, PSNH to Robert R. Scott, DES-Air Resources Division and the letter March 31, 2008 from Craig A. Wright, DES-Air Resources Division to William H. Smagula, PSNH concerning conditional new source review applicability determination concerning modifications at PSNH-Merrimack Station.

Table 9 – Monitoring/Testing Requirements					
Item No.	Device	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
			unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole. In order to calculate annual emissions as required pursuant to 40 CFR 52.21 (dated July 1, 2002), PSNH shall monitor emissions of SO ₂ , NO _x , CO, PM, and VOCs for a period of 5 years or more beginning in 2002.		

J. Recordkeeping Requirements

The Permittee is subject to the Recordkeeping requirements as contained in Table 10 below:

Table 10 – Applicable Recordkeeping Requirements ³⁰				
Item No.	Recordkeeping Requirement	Frequency of Recordkeeping	Applicable Emission Unit	Regulatory Cite
1.	<u>Record Retention:</u> The Permittee shall retain the records required by this permit on file for a minimum of 5 years, except the certificate of representation for the designated representatives shall be kept beyond the 5-year period. ³¹	Minimum of 5 year retention of records as specified	Facility Wide	40 CFR §72.9(f)(1), 40 CFR §75.57, 40 CFR 70.6(a)(3)(ii)(B), Env-A 3213, and Env-A 902.01(a)(new)
2.	<u>Monitoring Plan and QA/QC Plan:</u> A) The Permittee shall prepare and maintain a monitoring plan for the CEMS and COMS, which contains sufficient information to demonstrate that all unit SO ₂ emissions, NO _x emissions, CO ₂ emissions and opacity are monitored and reported. B) The Permittee shall prepare and maintain monitoring plans for other approved monitoring methods, which contain sufficient information to demonstrate that all unit NO _x emissions are monitored and	Whenever a change occurs that could affect monitoring method or annually, whichever is more frequent	MK1 & MK2, MKCT1 & MKCT2	40 CFR §75.53 (a), (b), (e), and (f), §75.73(c), Env-A 808.04, Env-A 808.06, Env-A 3212.13, and Env-A 2910.09

³⁰ On April 23, 1999 DES promulgated new Env-A 900 rules to streamline the recordkeeping and reporting requirement sections of the New Hampshire Code of Administrative Rules. Until such time that the new Env-A 900 rules are approved and adopted into the State Implementation Plan (SIP) by EPA, all Title V permits will be incorporating the old Env-A 900 rules (which became effective on November 11, 1992), unless the new Env-A 900 rules are more stringent. These recordkeeping and reporting requirements shall fall under the Permit Shield provisions as contained in Section XIII of this permit.

³¹ Note that the record retention requirement for five years contained in Env-A 902.01 and Env-A 3213 are more stringent than the three year record retention required in some sections of 40 CFR 75.

Table 10 – Applicable Recordkeeping Requirements³⁰

Item No.	Recordkeeping Requirement	Frequency of Recordkeeping	Applicable Emission Unit	Regulatory Cite
	<p>reported.</p> <p>C) The Permittee shall update the monitoring plan whenever the Permittee makes a replacement, modification or change that could affect the CEMS or COMS or other approved monitoring method.</p> <p>D) The Permittee shall review the QA/QC plan and all data generated by its implementation at least once each year.</p> <p>E) The Permittee shall revise or update the QA/QC plan, as necessary, based on the results of the annual review by conducting the following:</p> <ol style="list-style-type: none"> 1) Documenting any changes made to the CEM or the monitoring method or changes to any information provided in the monitoring plan; 2) Including a schedule of, and describing, all maintenance activities that are required by the CEM manufacturer or that might have an effect on the operation of the system; 3) Describing how the audits and testing required by this part will be performed; and 4) Including examples of the reports that will be used to document the audits and tests required by this part; 5) Make the revised QA/QC plan available for on-site review by the division at any time; and 6) Within 30 days of completion of the annual QA/QC plan review, certify in writing that the owner or operator will continue to implement the source’s existing QA/QC plan or submit in writing any changes to the plan and the reasons for each change. <p>F) The QA/QC plan shall be considered an update to the CEM monitoring plan required by Env-A 808.04.</p> <p>G) Pursuant to Env-A 3212.13(a) and Env-A 2910.09, the units subject to acid rain emission limitations (MK1 & MK2) shall comply with the requirements of 40 CFR 75.62, except the monitoring plan shall also include all of the information required by 40 CFR 75, Subpart H.</p>			

Table 10 – Applicable Recordkeeping Requirements³⁰

Item No.	Recordkeeping Requirement	Frequency of Recordkeeping	Applicable Emission Unit	Regulatory Cite
	<p>H) Pursuant to Env-A 3212.13(b), a unit not subject to acid rain emission limitations (MKCT1 & MKCT2) shall comply with the requirements of 40 CFR 75.62, except the monitoring plan shall only include the information required by 40 CFR 75, Subpart H.</p> <p>I) Pursuant to 40 CFR 75.73(c)(3), the monitoring plan for a unit not subject to acid rain emission limitations (MKCT1 & MKCT2) shall include the provisions of 40 CFR 75.53(e)(1), 75.53(f)(1)(i), (f)(2)(i), and (f)(4) in electronic format and 40 CFR 75.53(e)(2), 75.53(f)(1)(ii), and (f)(2)(ii) in hardcopy format.</p>			
3.	<p><u>CEM, COMS and Other Approved Monitoring Methods Recordkeeping Requirements:</u></p> <p>A) The Permittee shall record and maintain the information required pursuant to 40 CFR 75.57, 75.58, 75.59, and 75.73(b), which includes the certification, quality assurance, and quality control records.</p> <p>B) The Permittee shall record and maintain CEMS and COMS records according to the most stringent requirements of Env-A 808 and 40 CFR 75.</p>	As specified by regulation	MK1, MK2, MKCT1, MKCT2	40 CFR §75.57, 75.58, 75.59, and 75.73, Env-A 3212, Env-A 903.04 (a) (new), and Env-A 800
4.	<p><u>Liquid Fuel Oil Recordkeeping Requirements</u></p> <p>In lieu of sulfur testing pursuant to Table 9, Item #45, the owner or operator may maintain fuel delivery tickets that contain the following information:</p> <p>A) The date of delivery;</p> <p>B) The quantity of delivery;</p> <p>C) The name, address and telephone number of the company making the delivery; and</p> <p>D) For #1 or #2 fuel oil, diesel fuel, or JP-4 aviation fuel, a written statement or other documentation from the fuel supplier that the sulfur content of the fuel as delivered does not exceed state or federal standards for that fuel.</p>	For each delivery of liquid fuel to the facility	Facility Wide	Env-A 806.05 (new) and 40 CFR 70.6(a)(3)(ii)(A)
5.	<p><u>Delivery Ticket and Sulfur Analysis Records for Coal:</u> The permittee shall maintain delivery tickets from each coal supplier for each shipment of coal received. The delivery tickets shall be in a form suitable for inspection and available to the DES and/or EPA upon request. Each delivery ticket shall indicate the</p>	Each delivery of Coal	MK1 & MK2	Env-A 806.05 (new) & 40 CFR 70.6(a)(3)(ii)(A)

Table 10 – Applicable Recordkeeping Requirements³⁰

Item No.	Recordkeeping Requirement	Frequency of Recordkeeping	Applicable Emission Unit	Regulatory Cite
	<p>following:</p> <p>A) The name of the fuel supplier; B) The address of the fuel supplier; C) The telephone number of the fuel supplier; D) The type of fuel delivered; E) The quantity of coal delivered; F) The date of delivery; G) The maximum percent sulfur by weight of the coal delivered or the lb sulfur/MMBtu of coal; H) Identification of the mine from which the coal originated; I) The weight percent ash content of the coal; and J) The gross heat content of the coal (Btu per pound).</p> <p>If the delivery tickets do not contain sulfur content of fuel delivered, the Permittee shall provide other documentation from the fuel supplier with the above information or perform testing in accordance with appropriate ASTM test methods to determine compliance with the sulfur content limitation provisions in Env-A 1606 for solid fuels.</p>			
6.	<p><u>Solid Fuel Utilization Records:</u> The Permittee shall maintain the following monthly records or records for an alternative period as approved by DES in accordance with Env-A 912, of the bituminous coal characteristics and utilization:</p> <p>A) Fuel consumption; B) Fuel type; C) Ash content; D) Sulfur content as percent sulfur by weight of fuel and pounds per million Btu gross heat content; and E) Btu content per pound of fuel.</p>	Monthly or alternative period as approved by DES in accordance with Env-A 912	MK1 & MK2	Env-A 903.03(a)(1) (formerly Env-A 901.03(a)(2))

Table 10 – Applicable Recordkeeping Requirements³⁰

Item No.	Recordkeeping Requirement	Frequency of Recordkeeping	Applicable Emission Unit	Regulatory Cite
7.	<p><u>Liquid Fuel Utilization Records:</u> The Permittee shall maintain the following monthly records or records for an alternative period as approved by DES in accordance with Env-A 912, of the liquid fuel characteristics and utilization by device:</p> <p>A) Fuel consumption; B) Fuel type; C) Viscosity (based on generally accepted values); D) Sulfur content as percent sulfur by weight of fuel; E) Btu content per gallon of fuel; and F) Hours of operation of each fuel combustion device while operating with each type of liquid fuel, so the distribution of fuel among each combustion device can be estimated.</p>	Monthly or alternative period as approved by DES in accordance with Env-A 912	Facility Wide	Env-A 903.03(a)(3) and (b) (formerly Env-A 901.03(a)(1) and (c))
8.	<p><u>General Recordkeeping Requirements for Process Operations:</u> Keep monthly records of raw material utilization (coal) for each of the crusher systems and coal fed to MK1 and MK2.</p>	Monthly and consecutive 12 month periods	PCC, SCC, MK1, MK2	Env-A 903.02 & State Permits to Operate PO-BP-2416 & PO-BP-2417

Table 10 – Applicable Recordkeeping Requirements³⁰

Item No.	Recordkeeping Requirement	Frequency of Recordkeeping	Applicable Emission Unit	Regulatory Cite
9.	<p><u>General NOx Recordkeeping Requirements:</u> The Permittee shall record and maintain the following information for fuel burning devices:</p> <p>A) Facility information, including the following:</p> <ol style="list-style-type: none"> 1) Source name; 2) Source identification; 3) Physical address; and 4) Mailing address. <p>B) Identification of fuel burning devices;</p> <p>C) Operating schedule for each fuel burning device identified in Condition B) above:</p> <ol style="list-style-type: none"> 1) Days per calendar week during the normal operating schedule; 2) Hours per day during the normal operating schedule and for a typical ozone season day; and 3) Hours per year during the normal operating schedule. <p>D) Type and amount of fuel burned for each fuel-burning device during normal operating conditions and for a typical ozone season day, if different from normal operating conditions, on an hourly basis in mmBtu/hr.</p> <p>E) Theoretical potential NOx emissions for the calculation year for each fuel burning device:</p> <ol style="list-style-type: none"> 1) Annual emissions, in tons per year; and 2) Typical ozone season day emissions, in pounds per day. <p>F) Actual NOx emissions for each fuel burning device:</p> <ol style="list-style-type: none"> 1) Annual emissions, in tons per year; and 2) Typical ozone season day emissions, in pounds per day. <p>G) Emission factors and the origin of the emission factors used to calculate the NOx emissions.</p>	Annually and as applicable	Facility Wide	Env-A 905.02 (formerly Env-A 901.08(c)(1)-(5))

Table 10 – Applicable Recordkeeping Requirements³⁰

Item No.	Recordkeeping Requirement	Frequency of Recordkeeping	Applicable Emission Unit	Regulatory Cite
10.	<u>Recordkeeping Requirements for Sources or Devices with Add-On NO_x Air Pollution Control Equipment:</u> The Permittee shall record and maintain the following information: A) Air pollution control device identification number, type, model number, and manufacturer; B) Installation date; C) Unit(s) controlled; D) Type and location of the capture system, capture efficiency percent, and method of determination; E) Emission test results, including inlet NO _x concentration (ppm), outlet NO _x concentration (ppm), method of concentration determination, and date of determination; F) Information as to whether the air pollution control device is always in operation when the fuel burning device it is serving is in operation; and G) Destruction or removal efficiency of the air pollution control equipment, including the following information: 1) Destruction or removal efficiency, in percent; 2) Current primary and secondary equipment control information codes from EPA AIRS Air Facility Subsystem List for each piece of control equipment; 3) Date tested; and 4) Method of determining destruction or removal efficiency, if not tested.	Maintain at the facility at all times	MK1 & MK2	Env-A 905.03 (formerly Env-A 901.08(c)(6))
11.	<u>Boiler Operating Hour Records:</u> The owner or operator shall maintain a log to record the number of hours of operation of MK1 and MK2 each month. This log may be part of the existing work management system.	Monthly	MK1 & MK2	Env-A 906 & Temporary Permits FP-T-0054 & TP-B-0462
12.	<u>Emergency Generator Operating Records:</u> The owner or operator shall record and maintain monthly and consecutive 12-month records of the operating hours of the emergency generator.	Monthly	MKEG	Env-A 906 & State Permit to Operate PO-B-1788

Table 10 – Applicable Recordkeeping Requirements³⁰

Item No.	Recordkeeping Requirement	Frequency of Recordkeeping	Applicable Emission Unit	Regulatory Cite
13.	<p><u>Coal Crusher Records:</u> The Permittee shall maintain the following information, which may be included in the facility work management system:</p> <p>A) The monthly visible emission observation results for the secondary crusher;</p> <p>B) A log of repairs made to the coal crusher enclosure. The log shall include the following:</p> <ol style="list-style-type: none"> 1) The date a problem was observed; 2) The date of the repair; 3) A description of the problem; and 4) The corrective actions taken. 	As specified	MKPCC & MKSCC	State Permits to Operate No. PO-BP-2416 & PO-BP-2417
14.	<p><u>Certificate of Representation:</u> The Permittee shall complete and retain a certificate of representation for a designated representative or an alternate designated representative including the elements pursuant to 40 CFR 72.24, <i>Certificate of representation.</i></p>	Maintain at the facility at all times	MK1 & MK2	40 CFR §72.24
15.	<p><u>Regulated Toxic Air Pollutant Records:</u> The Permittee shall maintain records in accordance with the applicable method used to demonstrate compliance pursuant to Env-A 1405.</p>	Maintain at facility at all times	All devices subject to RSA 125-I and Env-A 1400	Env-A 902.01 (c) State-Only Enforceable
16.	<p><u>Monitoring Records:</u> The Permittee shall maintain records of monitoring results as specified in Table 9 of this Permit including the following:</p> <ol style="list-style-type: none"> A) Visible emission/opacity test results for the MKSCC, MKCT1, and MKCT2; B) NO_x, SO₂, CO₂, and continuous emissions monitoring data for MK1 & MK2; C) Continuous opacity monitoring data for MK1 & MK2; D) Stack volumetric flow rate (in kscfm) for MK1 & MK2; E) Inlet gas temperature to each ESP; F) Daily ammonia consumption of each SCR; G) Coal throughput for the MKPCC & MKSCC (primary and secondary coal crushers) H) Net electrical output; I) Coal E Belt scale calibrations/verifications for MK1 and MK2; J) Quantities of regulated substances facility-wide. 	Maintain at facility at all times	As specified for each monitoring record	40 CFR 70.6(a)(3)(ii)

Table 10 – Applicable Recordkeeping Requirements³⁰

Item No.	Recordkeeping Requirement	Frequency of Recordkeeping	Applicable Emission Unit	Regulatory Cite
17.	<u>Operating Scenario Records:</u> PSNH shall maintain a record of the scenarios under which it is operating. PSNH shall specify whether operation is under normal conditions or an alternative operating scenario listed in Section VII. PSNH shall specify which alternative operating scenario is in use.	Whenever operation method changes from normal operation to a specific alternative operating scenario	Facility wide	40 CFR 70.6 (a)(9)
18.	<u>Multi-pollutant Budget and Trading Program Recordkeeping Requirements:</u> The permittee shall comply with the recordkeeping requirements of the multi-pollutant budget and trading program.	As required by the rule	MK1 & MK2	Env-A 2900 State-Only Enforceable
19.	Fuel supplier certification shall include the following for No. 2 fuel oil or on-road low sulfur diesel oil: (1) the name of the oil supplier; and (2) a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60 Subpart Dc Section 60.41c (i.e., fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, “Standard Specification for Fuel Oils”) or complies with the specification for on-road low sulfur diesel oil of less than 0.05% sulfur by weight, for each load.	As specified by the rule	MKEB	40 CFR 60 Subpart Dc §60.48c(f)(1)
20.	The owner or operator shall record and maintain records of the amounts of each fuel combusted during each day in the Emergency Boiler.	Each day of operation	MKEB	40 CFR 60 Subpart Dc §60.48c(g)
21.	The owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the Emergency Boiler.	As stated in regulation	MKEB	40 CFR 60 Subpart A §60.7(b)
22.	The owner or operator shall maintain a file of all fuel flow (gal/hr) and totalizer measurements (gal/day) for the Emergency Boiler; all fuel flow meter and totalizer calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection.	Maintain at facility at all times	MKEB	40 CFR 60 Subpart A §60.7(f)

Table 10 – Applicable Recordkeeping Requirements³⁰

Item No.	Recordkeeping Requirement	Frequency of Recordkeeping	Applicable Emission Unit	Regulatory Cite
23.	<p><u>CO₂ Budget Trading Program Recordkeeping Requirements</u></p> <p>Unless otherwise provided, the Owner or Operator of the CO₂ budget source and each CO₂ budget unit at the source shall keep on site each of the following documents for a period of 10 years from the date the document is created:</p> <p>A) The account certificate of representation for the CO₂ AAR for the source and each CO₂ budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation prepared in accordance with Env-A 4604.05, provided that the certificate and documents shall be retained on site at the source beyond such 10-year period until such documents are superseded because of the submission of a new account certificate of representation changing the CO₂ AAR;</p> <p>B) All emissions monitoring information, in accordance with Env-A 4609 and 40 CFR 75;</p> <p>C) Copies of all reports, compliance certifications and other submissions and all records made or required under Env-A 4600; and</p> <p>D) Copies of all documents used to complete a CO₂ budget permit application and any other submission under the CO₂ Budget Trading Program or to demonstrate compliance with the requirements of Env-A 4600.</p>	Retain for a minimum of 10 years	MK1 & MK2	Env-A 4605.03(a)
24.	<p><u>Representative Actual Annual Emissions Test Recordkeeping Requirements:</u></p> <p>PSNH shall maintain records of SO₂, NO_x, CO, PM, and VOC emissions in tons/month and tons per consecutive 12-month period for MK1 and MK2.</p>	Monthly	MK1 & MK2	40 CFR 52.21(b)(21) and (33), dated July 1, 2002 and 40 CFR 70.6(a)(3)(ii) and Env-A 906

Table 10 – Applicable Recordkeeping Requirements³⁰

Item No.	Recordkeeping Requirement	Frequency of Recordkeeping	Applicable Emission Unit	Regulatory Cite
25.	<u>ESP Monitoring Records:</u> The owner or operator shall maintain records of monitoring results as specified in Table 9, Item 40 of this Permit, including the following: A) Fields out of service for each ESP unit, B) The time the field stopped operating, C) The reason for the field being out of service, D) The time the field was returned to service, and E) Corrective actions taken to return the field to service.	Daily	MK1-PC1, MK1-PC2, MK2-PC4 & MK2-PC5	40 CFR 70.6(a)(3)(ii)

K. Reporting Requirements

The Permittee is subject to the federally enforceable reporting requirements identified in Table 11 below:

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
1.	<p><u>CEMS Recertification Notifications and Reports:</u></p> <p>A) The Permittee shall notify EPA and DES by telephone or in writing and not later than 21 days prior to the first scheduled day of full recertification testing and at least 7 calendar days prior to the first scheduled day of partial recertification testing (when all of the tests are not required). In emergency situations when equipment fails with lost data, the Permittee may provide notice within 2 business days following the date when testing is scheduled. If the testing is rescheduled, the Permittee may notify DES and EPA by telephone or other means within 2 business days prior to the scheduled test date or the revised test date, whichever is earlier.</p> <p>B) Within 45 calendar days after completing all recertification tests, the Permittee shall submit to EPA and DES the electronic and hardcopy information contained in 40 CFR 75.63.</p> <p>C) Pursuant to Env-A 3212.14 and Env-A 2910.10, the permittee shall submit an application to DES within 45 days after completing all initial certification or recertification tests including the information required under 40 CFR 75, Subpart H.</p> <p>D) Pursuant to Env-A 2910.07, the permittee shall also submit written notification required pursuant to 40 CFR 75.61 to the ATS administrator.</p> <p>E) Pursuant to Env-A 3212.09, the permittee shall comply with the notification requirements of Env-A 3212.07 for MKCT1 & MKCT2.</p>	7 days prior to partial recertification, 21 days prior to full recertification, and 45 days after all recertification tests ³²	MK1 & MK2	40 CFR §75.61 (a)(1), 75.70, 75.63, and 75.73(d) and Env-A 3212 and 2910
2.	<p><u>Relative Accuracy Test Audit (RATA) Notification and Reports:</u></p> <p>A) The Permittee shall submit written notice to EPA and DES no later than 21 calendar days prior to the first scheduled day of testing. If the testing is rescheduled, the Permittee may notify DES and EPA by telephone or other means no later than 24-hours in advance of the new testing date. Pursuant to Env-A 808.07, PSNH shall notify DES at least 30 days prior to the performance of the RATA. DES shall require rescheduling of the RATA if staff necessary to observe the RATA are not available.</p>	21 calendar days prior to RATA	MK1 & MK2	40 CFR §75.61 (a)(5), §75.73(d), Env-A 3212.11, Env-A 2910, Env-A 808.05, and Env-A 808.07(c) and (d)

³² “For Items 1, 2, and 3, PSNH – Merrimack Station shall comply with the more stringent notification and reporting requirements specified in Env-A 800 instead of those specified in 40 CFR 75, with the exception of notification and/or reporting required by Env-A 2900 or Env-A 3200 which shall be done at the frequencies specified in 40 CFR 75. Env-A 808 requires at least 30 days notification to DES prior to the scheduled date of a CEM certification, Relative Accuracy Test Audit, or Performance Specification testing and requires that the final report be submitted to DES within 30 days of the completion of the testing”.

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
	B) If requested, the Permittee shall submit the quality assurance RATA reports to EPA and DES by the later of 45 days after completing a quality assurance RATA or 15 days of receiving the request. C) Pursuant to Env-A 808.05, the permittee shall submit to DES a written report summarizing the performance specification testing within 30 days of the completion of the test. D) Pursuant to Env-A 3212.11, for MKCT1 & MKCT2, the permittee shall submit written notification to DES only. E) Pursuant to Env-A 2910.07, the permittee shall also submit written notification required pursuant to 40 CFR 75.61 to the ATS administrator.			
3.	<u>Performance Specification Testing Reports:</u> A) DES shall be notified of the date or dates of the performance specification testing at least 30 days prior to the scheduled dates. B) The owner or operator shall submit to DES a written report summarizing the testing within 30 days of the completion of the test.	30-day notice to DES prior to test; test report to DES 30 days after the test	MK1 & MK2	Env-A 808.05
4.	<u>General Audit Notification Requirements:</u> The owner or operator shall notify DES at least 2 weeks prior to any planned audit or test procedure except for RATAs, where the owner or operator shall provide at least 30 days notice prior to the performance of the RATA.	2 weeks prior to any planned audit or test procedure and at least 30 days prior to the RATA.	MK1 & MK2	Env-A 808.07(c) and (e)

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
5.	<p><u>Monitoring and QA/QC Plan Submittals:</u></p> <p>A) Electronic copy: The Owner or Operator shall submit a complete, electronic, up-to-date monitoring plan to EPA and DES as follows:</p> <ol style="list-style-type: none"> 1) No later than 21 days prior to the initial certification tests; 2) At the time of recertification application submission; 3) In each electronic quarterly report (Item #6 of Table 11); and 4) Whenever an update of the electronic monitoring plan information is required under 40 CFR 75.53(b). <p>B) Hardcopy: The Owner or Operator shall submit all of the hardcopy information required by 40 CFR 75.53 to EPA and DES prior to initial certification. Thereafter, the Owner or Operator shall submit hardcopy information only if that portion of the monitoring plan is revised. The Owner or Operator shall submit the required hardcopy information as follows: no later than 21 days prior to the initial certification test; with any certification or recertification application, if a hardcopy monitoring plan change is associated with the certification or recertification event; and within 30 days of any other event with which a hardcopy monitoring plan change is associated, pursuant to 40 CFR 75.53(b). Electronic submittal of all monitoring plan information, including hardcopy portions, is permissible provided that a paper copy of the hardcopy portions can be furnished upon request.</p> <p>C) Contents: The monitoring plan shall contain the information specified in 40 CFR 75.53.</p> <p>D) Format: The designated representative shall submit each monitoring plan in a format specified by EPA.</p>	As specified	MK1, MK2, MKCT1, & MKCT2	40 CFR §75.62, §75.73(d) and (e), Env-A 808.04, Env-A 808.06, Env-A 3212, and Env-A 2910
6.	<p><u>Quarterly Reports:</u></p> <p>A) The Permittee shall submit to DES and EPA in electronic format or other format as approved by DES and/or EPA 30 calendar days after the end of the calendar quarter the information contained in 40 CFR 75.64(a), 40 CFR 75.73(f), 40 CFR 75.74, Env-A 2912, Env-A 3212, Env-A 3214, Env-A 808.11(new), and Env-A 808.13 (new) and the following information:</p> <ol style="list-style-type: none"> 1) Opacity, SO₂, NO_x, and CO₂ emissions as calculated by the CEMS. 2) The 24-hour averages of the following shall be reported, whether or not an excess emission has occurred: 	30 calendar days after the end of the calendar quarter for MK1 and MK2, 30 calendar days after the end of the 2 nd and 3 rd calendar quarter for MKCT1 & MKCT2	MK1, MK2, MKCT1, & MKCT2	40 CFR §75.64, §75.73(f), §75.57(f), §75.74, 40 CFR 70.6(a)(3)(iii), Env-A 2910, Env-A 2911, Env-A 3212, Env-A 3214, Env-A 808.11(new), Env-A 808.13 (new) & Temporary

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
	<ul style="list-style-type: none"> a. SO₂ lb/mmBtu, SO₂ ppm, and SO₂ lb/hr; b. NO_x lb/mmBtu, NO_x ppm, and NO_x lb/hr; c. Percent CO₂ and CO₂ lb/hr as measured by continuous monitor/recorder; d. Stack volumetric flow rate (in kscfm); e. Load (in MW); f. Steam flow (in klbs/hr); g. Heat input (mmBtu/hr); h. Opacity (in percent); i. Fuel flow (in tons/day); j. Hours of operation (in hours/day); and k. Ammonia usage (in gallons/day). <p>3) Excess emission data recorded by the CEM system, including the following:</p> <ul style="list-style-type: none"> a. The date and time of the beginning and ending of each of excess emissions; b. The magnitude of each excess emission; c. The specific cause of the excess emission; and d. The corrective action taken. <p>4) If no excess emissions have occurred, a statement to that effect;</p> <p>5) For gaseous emission monitoring systems, the daily averages of the measurements made and emissions rates calculated.</p> <p>6) A statement as to whether the CEM system was inoperative, repaired, or adjusted during the reporting period;</p> <p>7) If the CEM system was inoperative, repaired, or adjusted during the reporting period, the following information:</p> <ul style="list-style-type: none"> a. The date and time of the beginning and ending of each period when the CEM was inoperative; b. The reason why the CEM was not operating; c. The corrective action taken; and d. The percent data availability calculated in accordance with Env-A 808.10 for each flow, diluent, or pollutant analyzer in the CEM system; <p>8) The date and time beginning and ending each period when the source of emissions which the CEM system is monitoring was not operating;</p> <p>9) When calibration gas is used, the following information:</p> <ul style="list-style-type: none"> a. The calibration gas concentration; b. If a gas bottle was changed during the 			<p>Permits TP-B-0462 & TP-B--0054</p>

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
	<p>quarter:</p> <ul style="list-style-type: none"> i) The date of the calibration gas bottle change; ii) The gas bottle concentration before the change; and iii) The gas bottle concentration after the change; and <p>c. The expiration date for all calibration gas bottles used.</p> <p>10) Excess emissions of SO₂ shall be defined as an annual SO₂ emission, which exceeds the state acid rain emission limitation, as calculated from CEM data.</p> <p>B) The designated representative shall affirm that the component/system identification codes and formulas in the quarterly electronic reports represent current operating conditions.</p> <p>C) The designated representative shall submit a certification in support of each quarterly emissions monitoring report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored.</p> <p>D) The certification shall indicate whether the monitoring data submitted were recorded in accordance with the applicable requirements of this part including the quality control and quality assurance procedures and specifications of 40 CFR 75, and any such requirements, procedures and specifications of an applicable excepted or approved alternative monitoring method.</p> <p>E) For a unit with add-on emission controls, the designated representative shall also include a certification, for all hours where data are substituted following the provisions of 40 CFR 75.34(a)(1), that the add-on emission controls were operating within the range of parameters listed in the monitoring plan and that the substitute values recorded during the quarter do not systematically underestimate SO₂ or NO_x emissions, pursuant to 40 CFR 75.34.</p> <p>F) For a unit that is reporting on a control period basis, the designated representative shall also include a certification that the NO_x emission rate and NO_x concentration values substituted for missing data under 40 CFR 75 Subpart D are calculated using only values from a control period and do not systematically underestimate NO_x emissions.</p>			

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
	<p>G) Pursuant to Env-A 3212.15(b), for MKCT1 & MKCT2, the owner or operator shall either meet all of the requirements of 40 CFR 75 related to monitoring and reporting NO_x mass emissions during the entire year or submit quarterly reports only for the periods from the earlier of May 1 or the date and hour that the owner or operator successfully completes all of the recertification tests required in accordance with 40 CFR 75.74 through September 30 of each year in accordance with 40 CFR 75.74(b).</p> <p>H) Pursuant to Env-A 3212.15(e) and Env-A 2910.11(a)(3), the quarterly reports shall be submitted in the manner specified in 40 CFR 75, Subpart H and 40 CFR 75.64.</p> <p>I) Pursuant to Env-A 3212.15(f) and Env-A 2910.11(a)(4), for MK1 & MK2, the quarterly reports shall include all of the data and information required in 40 CFR Subpart H and 40 CFR Subpart G.</p> <p>J) Pursuant to Env-A 3212.15(g), for MKCT1 & MKCT2, the quarterly reports shall include all of the data and information required in 40 CFR Subpart H.</p> <p>K) Pursuant to Env-A 3214.01 and Env-A 2911.01, the owner or operator shall also submit emissions and operations information in electronic format as part of the quarterly reports.</p> <p>L) Pursuant to Env-A 3214.02, the owner or operator shall also submit to the NETS administrator in the quarterly reports, NO_x emissions in lb/hr for every hour during the control period and cumulative quarterly and seasonal NO_x emission data in pounds.</p> <p>M) Pursuant to Env-A 2911.02, the owner or operator shall also submit to the ETS administrator in the quarterly reports, SO₂, NO_x and CO₂ emissions in lb/hr for every hour during the year and cumulative quarterly and annual SO₂, NO_x and CO₂ emissions data in pounds.</p>			
7.	<p><u>Excess Emissions Requirements</u> If either of these devices has excess emissions of NO_x or SO₂ in any calendar year, then the owner or operator shall submit a proposed offset plan, as required under 40 CFR 77. The owner or operator of an affected source that has excess emissions in any calendar year shall:</p> <p>A) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR 77.6; and</p> <p>B) Comply with the terms of an approved offset plan, as required by 40 CFR 77.3.</p>	Within 60 days after the end of any calendar year where a unit has excess emissions of sulfur dioxide or nitrogen oxide	MK1 & MK2	40 CFR §72.9(e)

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
8.	<u>Offset Plans for Excess SO₂ Emissions:</u> The Permittee shall submit an offset plan no later than 60 days after the end of any calendar year during which a unit has excess SO ₂ emissions. The offset plan shall contain the information pursuant to 40 CFR 77.3.	Within 60 days after the end of any calendar year where a unit has excess emissions of sulfur dioxide	MK1 & MK2	40 CFR §77.3
9.	<u>Quarterly Audit Reports:</u> Pursuant to Env-A 808.07 (new), the Permittee shall submit to DES, a written summary report of the results of all required audits that were performed in that quarter, in accordance with the following: A) For gaseous CEM audits, the report format shall conform to that presented in 40 CFR 60, Appendix F, Procedure 1, Section 7; and B) For opacity CEM audits, the report format shall conform to that presented in EPA-600/8-87-025, April 1992, “Technical Assistance Document: Performance Audit Procedures for Opacity Monitors.”	Quarterly, no later than 30 calendar days after the end of the quarter for which reporting is required	MK1 & MK2	Env-A 808.07 (new)
10.	<u>Net Thermal and Electrical Output Reporting:</u> The facility shall report the net thermal and electrical output of each affected source for each month of the calendar year to DES.	Annually (no later than April 15 th of the following year)	MK1, MK2, MKCT1, & MKCT2	Env-A 2906.05(g) & Env-A 3207.04(h)
11.	<u>Coal Quarterly Reports:</u> Quarterly reports shall be submitted to DES, which include the following information for each coal shipment. The data shall be summarized on a monthly basis. Submittal of the “Monthly Report of Cost and Quality of Fuel for Electric Plants”, will satisfy the requirements of this condition. A) The shipment date; B) The weight of coal received in tons; C) Identification of the mine from which the coal came from; D) The ash content in weight percent of the coal; E) The sulfur lb/mmBtu content of coal or the weight percent of sulfur in the coal; and F) The gross heat content of the coal in Btu/lb.	Within 30 days after each calendar quarter	MK1 & MK2	Env-A 910 & Temporary Permits FP-T-0054 & TP-B-0462

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
12.	<p><u>Performance Test Reports:</u> The Permittee shall submit a report to DES documenting the results of the compliance stack emission test. The compliance stack emission test report shall contain the following information:</p> <p>A) All the information required for the pre-test protocol as described in Env-A 802.04;</p> <p>B) All test data;</p> <p>C) All calibration data;</p> <p>D) Process data agreed by DES and the Permittee to be collected;</p> <p>E) All test results;</p> <p>F) A description of any discrepancies or problems that occurred during testing or sample analysis;</p> <p>G) An explanation of how discrepancies or problems were treated and their effect on the final results; and</p> <p>H) A list and description of all equations used in the test report, including sample calculations for each equation used.</p>	No later than 60 days after a performance test	Facility wide	Env-A 802.11 (new)
13.	<p><u>Quarterly Fuel Usage Report:</u> Monthly fuel usage information by device, fuel type, and sulfur content shall be submitted in writing to the DES.</p>	Within 30 days after the end of a calendar quarter	Facility Wide	Env-A 910 & Temporary Permits FP-T-0054 & TP-B-0462
14.	<p><u>NOx Reporting Requirements:</u> The Permittee shall submit reports of the NOx records kept pursuant to the Section VIII. I. Table 10.</p>	Annually (no later than April 15 th of the following year)	MK1, MK2, MKCT1, MKCT2, MKEG, & MKEB	Env-A 909.03 (formerly Env-A 901.09)
15.	<p><u>State Acid Deposition Control Program Reporting Requirements:</u> The Permittee shall submit an annual report of the fuel utilization information pursuant to Env-A 903.03 and Section VIII. I. Table 10.</p>	Annually (no later than April 15 th of the following year)	MK1 & MK2	Env-A 907.02 State-Only Enforceable
16.	<p><u>Ammonia Consumption of SCR Systems:</u> Submit monthly ammonia consumption for each SCR System (MK1-PC3 and MK2-PC6) during the calendar year.</p>	Annually (no later than April 15 th of the following year)	MK1-PC3 & MK2-PC6	40 CFR 70.6(a)(3)(iii) & Temporary Permits FP-T-0054 & TP-B-0462
17.	<p><u>Regulated Toxic Air Pollutant Reports:</u> The Permittee shall report actual emissions speciated by individual regulated toxic air pollutants, including a breakdown of VOC emission compounds.</p>	Annually (no later than April 15 th of the following year)	All devices subject to RSA 125-I and Env-1400	Env-A 907.01 (new) State-Only Enforceable

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
18.	<p><u>Semi-Annual Permit Deviation/Monitoring Reports:</u> The Permittee shall submit a permit deviation/monitoring report of the data specified in Table 9 of this Permit every 6 months. All required reports must be certified by a responsible official consistent with 40 CFR 70.5(d). The report shall contain a summary of the following information, unless this information was provided to DES pursuant to another requirement:</p> <p>A) Visible emission/opacity test results;</p> <p>B) Summary showing monthly average sulfur content of the liquid and solid fuels from testing and/or delivery ticket and/or other documentation certifications for liquid and solid fuel sulfur content;</p> <p>C) Results of any recent stack testing conducted at the facility;</p> <p>D) Fuel consumption for MK1 & MK2;</p> <p>E) Coal throughput for the coal crushers;</p> <p>F) Any fields out of service in any of the ESP's during the reporting period, including the time the field stopped operating, the reason for the field being out of service, the time the field was returned to service, and any corrective action taken; and</p> <p>G) All instances of deviations from Permit requirements.</p>	Semiannually (by July 31 st and January 31 st of each calendar year)	Facility wide	40 CFR 70.6(a)(3)(iii)(A)
19.	<p><u>ESP Reports:</u></p> <p>A) Within 24 hours of discovery of more than 7 fields out of service on MK1-PC1 and MK1-PC2 combined, the owner or operator shall notify (e.g., via call or email, etc.) DES on the next business day of the number of fields out of service in any of the ESPs.</p> <p>B) Within 24 hours of discovery of more than 8 fields out of service on MK2-PC4 and MK2-PC5 combined, the owner or operator shall notify (e.g., via call or email, etc.) DES on the next business day of the number of fields out of service in any of the ESPs.</p>	Each occurrence	MK1-PC1, MK1-PC2, MK2-PC4 & MK2-PC5	40 CFR 70.6 (a)(3)(iii)(B)
20.	<p><u>Prompt Reporting of Permit Deviations:</u> The Permittee shall promptly report deviations from permit requirements by phone, fax or e-mail in accordance with Section XXVIII of this permit and Env-A 911 (new).</p>	Within 24 hours of discovery of occurrence	Facility wide	Env-A 911 & 40 CFR 70.6 (a)(3)(iii)(B)
21.	<p><u>Certification by the Designated Representative or the Alternate Designated Representative:</u> Any document submitted under the Acid Rain program shall be signed and certified by the designated representative or the alternate designated representative and include the statements pursuant to 40 CFR 72.21 (a)(1) and (2).</p>	With each submittal	MK1 & MK2	40 CFR §72.21

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
22.	<u>Certification by a Responsible Official:</u> Any application form, report, or compliance certification submitted to the DES and/or EPA shall contain certification by a responsible official of truth, accuracy, and completeness as outlined in Section XXI.B of this permit.	With each submittal	Facility wide	40 CFR 70.5 (d)
23.	<u>Emissions Reporting and Emissions Fees:</u> The Permittee shall submit reports of actual emissions of all significant and insignificant activities and payment of emissions-based fees in accordance with Env-A 700 and Section XXIII of this permit.	Quarterly payment on the 15 th day of the 2 nd quarter after actual emissions occurred; Reporting of actual annual emissions done annually by April 15 th the following year	Facility wide	Env-A 907.01 (new) & Env-A 705.03 & 705.04
24.	<u>NOx Budget Program Annual Compliance Certification:</u> For each control period (May 1 to September 30 of each year), the AAR for each budget source shall submit an annual compliance certification to DES containing the information specified in Env-A 3216.03.	November 30 th each calendar year	MK1, MK2, MKCT1, MKCT2	Env-A 3216 State-Only Enforceable
25.	<u>Multi-pollutant Budget and Trading Program Annual Compliance Certification:</u> The Permittee shall submit an annual compliance certification to DES for the prior year containing all of the information listed in Env-A 2913.03(a) through (e).	By January 30 th of each year, beginning in 2007	MK1 & MK2	Env-A 2913.01, 2913.02, & 2913.03 State-Only Enforceable
26.	<u>Annual Title V Compliance Certification:</u> The Permittee shall submit an annual compliance certification in accordance with Section XXI of this permit.	Annually (no later than April 15 th of the following year)	Facility wide	40 CFR 70.6(c)(1)

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
27.	<p><u>NSPS Subpart Dc Initial Notification Requirements for the Emergency Boiler</u>: Each time the owner or operator brings in an Emergency Boiler to the PSNH Merrimack Station, the owner or operator shall furnish the EPA and DES written notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60, Subpart A, Section 60.7. This notification shall include:</p> <p>A) The design heat input capacity of the boiler and identification of fuels to be combusted in the boiler;</p> <p>B) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for the boiler (e.g., a copy of this permit); and</p> <p>C) The annual capacity factor at which the facility anticipates operating the boiler based on all fuels combined and each individual fuel.</p> <p>Notification of the date of construction/installation of the boiler is commenced is due no later than 30 days after such date.</p> <p>Notification of the anticipated initial startup of the boiler, must be postmarked not more than 60 days nor less than 30 days prior to the initial startup date.</p> <p>Notification of the actual date of initial startup of the boiler is commenced must be postmarked within 15 days after the initial startup date.</p>	As stated for each installation of an Emergency Boiler	MKEB	40 CFR 60 Subpart Dc §60.48c(a)
28.	<p><u>NSPS Subpart Dc Performance Test Report for the Emergency Boiler</u>: Each time the owner or operator brings in an Emergency Boiler for operation, the owner or operator shall submit to EPA and DES results of the performance test for opacity and the fuel supplier certification for the first load of No. 2 fuel oil or on-road low sulfur diesel oil for consumption in the Emergency Boiler.</p>	Within 60 days of completion of testing	MKEB	40 CFR 60 Subpart Dc §60.48c(b)

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
29.	<p><u>NSPS Subpart Dc Semi-annual Fuel Report for the Emergency Boiler</u>: In accordance with 40 CFR 60 Subpart Dc Sections 60.48c(d) and (j), the owner or operator is required to submit semi-annual reports to EPA and DES, postmarked within 30 days following the end of the reporting period. Semi-annual reports shall include:</p> <p>A) Calendar dates covered in the reporting period;</p> <p>B) Each 30-day average sulfur content (weight percent) of No. 2 fuel oil or on-road low sulfur diesel oil fired during the reporting period, reasons for any non-compliance the fuel sulfur content limits, and corrective actions taken; and</p> <p>C) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under Section 60.48c(f)(1), as applicable.</p> <p>D) In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the boiler that the records of fuel supplier certification submitted represent all of the fuel combusted during the reporting period.</p>	Semi-annually, within 30 days following the end of the reporting period to DES and EPA	MKEB	40 CFR 60 Subpart Dc §60.48c(d), (e), & (j)
30.	<p><u>RSA 125-O Mercury Emissions Reporting Requirement</u> The owner shall report by June 30, 2007, and annually thereafter, to the legislative oversight committee on electric utility restructuring, established under RSA 374-F:5, and the chairpersons of the House science, technology, and energy committee, and the Senate energy and economic development committee, on the progress and status of complying with the requirements of RSA 125-O:13,I. and III., relative to achieving early reductions in mercury emissions and also installing and operating the scrubber technology, including any updated cost information. The last report required shall be after the Department has made a determination, under RSA 125-O:13,V., on the maximum sustainable rate of mercury emissions reductions by the scrubber technology.</p>	By June 30, 2007, and annually thereafter	MK1 & MK2	RSA 125-O:13,IX. (State-Only Enforceable)
31.	<p><u>CO₂ Budget Trading Program Reports</u> The CO₂ AAR shall submit quarterly reports as follows:</p> <p>A) The CO₂ AAR shall report the CO₂ mass emissions data for the CO₂ budget unit, in an electronic format prescribed by the Administrator unless otherwise prescribed by the regional organization, for each calendar quarter beginning with the calendar quarter covering January 1, 2009 through March 31, 2009;</p> <p>B) The CO₂ AAR shall submit each quarterly report to the regional organization within 30 days following the end of the calendar quarter covered by the report, in the manner specified in Subpart H of 40 CFR 75 and 40 CFR 75.64;</p>	Quarterly (no later than 30 days following the end of each quarterly reporting period)	MK1 & MK2	Env-A 4609.16(c)

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
	<p>C) Quarterly reports shall be submitted for each CO₂ budget unit which include all of the data and information required in Subpart G of 40 CFR 75, except for opacity, NO_x, and SO₂ provisions; and</p> <p>D) The CO₂ AAR shall include a compliance certification with, and in support of, each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:</p> <ol style="list-style-type: none"> 1) The monitoring data submitted were recorded in accordance with the applicable requirements of both 40 CFR 75 and Env-A 4600, including the quality assurance procedures and specifications; and 2) The CO₂ concentration values substituted for missing data under Subpart D of 40 CFR 75 do not systematically underestimate CO₂ emissions. 			
32.	Each submission under the CO ₂ budget trading program shall be submitted, signed, and certified by the CO ₂ AAR for each CO ₂ budget source on behalf of which the submission is made. Each such submission shall include the certification statement by the CO ₂ AAR as specified in Env-A 4604.01(e).	N/A	MK1 & MK2	Env-A 4604.01(e)
33.	<p><u>Compliance Certification Report</u></p> <p>A) For each control period in which a CO₂ budget source is subject to the requirements of Env-A 4605, the CO₂ AAR of the source shall submit to the Department by March 1 following the relevant control period, a compliance certification report.</p> <p>B) The CO₂ AAR shall include in the compliance certification report under (a), above, the following elements, in a format prescribed by the Department:</p> <ol style="list-style-type: none"> 1) Identification of the source and each CO₂ budget unit at the source; 2) At the CO₂ AAR's option, the serial numbers of the CO₂ allowances that are to be deducted from the source's compliance account under Env-A 4605.06 for the control period, including the serial numbers of any CO₂ offset allowances that are to be deducted subject to the limitations of Env-A 4605.04; and 3) The compliance certification specified in (c), below. <p>C) In the compliance certification report required by A), above, the CO₂ AAR shall certify, based on reasonable inquiry of those individuals with primary responsibility for operating the source and the CO₂ budget units at the source in compliance with the CO₂ Budget Trading Program, whether the source and each CO₂ budget unit at the source for which the compliance certification is submitted was operated during the calendar years covered by the report in compliance with the requirements of the CO₂ Budget Trading Program, including:</p>	March 1 following the relevant control period	MK1 & MK2	Env-A 4605.09

Table 11 – Applicable Reporting Requirements

Item No.	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
	<ol style="list-style-type: none"> 1) Whether the source was operated in compliance with the requirements of Env-A 4605; 2) Whether the monitoring plan applicable to each unit at the source has been maintained to reflect the actual operation and monitoring of the unit, and contains all information necessary to attribute CO₂ emissions to the unit, in accordance with Env-A 4609; 3) Whether all CO₂ emissions from the units at the source were monitored or accounted for through the missing data procedures specified in 40 CFR 75 Subpart D, or 40 CFR 75 appendix D or appendix E and reported in the quarterly monitoring reports, including whether conditional data were reported in the quarterly reports in accordance with Env-A 4609. If conditional data were reported, the Owner or Operator shall indicate whether the status of all conditional data has been resolved and all necessary quarterly report resubmissions have been made; 4) Whether the facts that form the basis for certification under Env-A 4609 of each monitor at each unit at the source, or for using an excepted monitoring method or alternative monitoring method approved under Env-A 4609, if any, have changed; and 5) If a change is required to be reported under (c)(iv), above, the nature of the change, the reason for the change, when the change occurred, and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor recertification. 			
34.	<p><u>Representative Actual Annual Emissions Reporting Requirements:</u> PSNH shall submit to DES annually, SO₂, NO_x, CO, PM, and VOC emissions in tons/month and consecutive 12-month period for MK1 and MK2.</p>	Annually (no later than April 15 th the following year)	MK1 & MK2	40 CFR 52.21(b)(21) and (33), dated July 1, 2002 and Env-A 910 (new)

IX. Requirements Currently Not Applicable

The Permittee did not identify any requirements that are not applicable to the facility.

General Title V Operating Permit Conditions

X. Issuance of a Title V Operating Permit

- A.** This Permit is issued in accordance with the provisions of Part Env-A 609. In accordance with 40 CFR 70.6(a)(2), this Permit shall expire on the date specified on the cover page of this Permit, which shall not be later than the date five (5) years after issuance of this Permit.
- B.** Permit expiration terminates the Permittee's right to operate the Permittee's emission units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is **received by the Department** at least 6 months before the expiration date.

XI. Title V Operating Permit Renewal Procedures

Pursuant to Env-A 609.07(b), an application for renewal of this Permit shall be considered timely if it is **received by the Department** at least six months prior to the designated expiration date of the current Title V operating permit.

XII. Application Shield

Pursuant to Env-A 609.08, if an applicant submits a timely and complete application for the issuance or renewal of a Permit, the failure to have a Permit shall not be considered a violation of this part until the Director takes final action on the application.

XIII. Permit Shield

A. Pursuant to Env-A 609.09(a), a permit shield shall provide that:

1. For any applicable requirement or any state requirement found in the New Hampshire Rules Governing the Control of Air Pollution specifically included in this Permit, compliance with the conditions of this Permit shall be deemed compliance with said applicable requirement or said state requirement as of the date of permit issuance; and
2. For any potential applicable requirement or any potential state requirement found in the New Hampshire Rules Governing the Control of Air Pollution specifically identified in this Title V Operating Permit Section IX as not applicable to the stationary source or area source, the Permittee need not comply with the specifically identified federal or state requirements.

B. The permit shield identified in Section XIII.A. of this Permit shall apply only to those conditions incorporated into this Permit in accordance with the provisions of Env-A 609.09(b). It shall not apply to certain conditions as specified in Env-A 609.09(c) that may be incorporated into this Permit following permit issuance by DES.

- C. If a Title V Operating Permit and amendments thereto issued by the DES does not expressly include or exclude an applicable requirement or a state requirement found in the NH Rules Governing the Control of Air Pollution, that applicable requirement or state requirement shall not be covered by the permit shield and the Permittee shall comply with the provisions of said requirement to the extent that it applies to the Permittee.
- D. If the DES determines that this Title V Operating Permit was issued based upon inaccurate or incomplete information provided by the applicant or Permittee, any permit shield provisions in said Title V Operating Permit shall be void as to the portions of said Title V Operating Permit which are affected, directly or indirectly, by the inaccurate or incomplete information.
- E. Pursuant to Env-A 609.09(f), nothing contained in Section XIII of this Permit shall alter or affect the ability of the DES to reopen this Permit for cause in accordance with Env-A 609.19 or to exercise its summary abatement authority.
- F. Pursuant to Env-A 609.09(g), nothing contained in this section or in any title V operating permit issued by the DES shall alter or affect the following:
1. The ability of the DES to order abatement requiring immediate compliance with applicable requirements upon finding that there is an imminent and substantial endangerment to public health, welfare, or the environment;
 2. The state of New Hampshire's ability to bring an enforcement action pursuant to RSA 125-C:15,II;
 3. The provisions of section 303 of the CAA regarding emergency orders including the authority of the EPA Administrator under that section;
 4. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 5. The applicable requirements of the acid rain program, consistent with section 408(a) of the CAA;
 6. The ability of the DES or the EPA Administrator to obtain information about a stationary source, area source, or device from the owner or operator pursuant to section 114 of the CAA; or
 7. The ability of the DES or the EPA Administrator to enter, inspect, and/or monitor a stationary source, area source, or device.

XIV. Reopening for Cause

The Director shall reopen and revise a Title V Operating Permit for cause if any of the circumstances contained in Env-A 609.19(a) exist. In all proceedings to reopen and reissue a Title V Operating Permit, the Director shall follow the provisions specified in Env-A 609.19(b) through (g).

XV. Administrative Permit Amendments

- A. Pursuant to Env-A 612.01, the Permittee may implement the changes addressed in the request for an administrative permit amendment as defined in Part Env-A 100 immediately upon submittal of the request.
- B. Pursuant to Env-A 612.01, the Director shall take final action on a request for an administrative permit amendment in accordance with the provisions of Env-A 612.01(b) and (c).

XVI. Operational Flexibility

- A. Pursuant to Env-A 612.02, the Permittee subject to and operating under this Title V Operating Permit may make changes involving trading of emissions, off-permit changes, and section 502(b)(10) changes at the permitted stationary source or area source without filing a Title V Operating Permit application for and obtaining an amended Title V Operating Permit, provided that all of the following conditions are met, as well as conditions specified in Section XVI. B through E of this permit, as applicable. DES has included permit terms authorizing the generation of DERs.
 - 1. The change is not a modification under any provision of Title I of the CAA;
 - 2. The change does not cause emissions to exceed the emissions allowable under the Title V operating permit, whether expressed therein as a rate of emissions or in terms of total emissions;
 - 3. The owner or operator has obtained any temporary permit required by Env-A 600;
 - 4. The owner or operator has provided written notification to the director and administrator of the proposed change and such written notification includes:
 - a) The date on which each proposed change will occur or has occurred;
 - b) A description of each such change;
 - c) Any change in emissions that will result;
 - d) A request that the operational flexibility procedures be used; and
 - e) The signature of the responsible official, consistent with Env-A 605.04(b);

5. The change does not exceed any emissions limitations established under any of the following:
 - a) The New Hampshire Code of Administrative Rules, Env-A 100-4300;
 - b) The CAA; or
 - c) This Title V Operating Permit; and
 6. The Permittee, DES, and EPA have attached each written notice required above to their copy of this Title V Operating Permit.
- B.** For changes involving the trading of emissions, the Permittee must also meet the following conditions:
1. The Title V Operating Permit issued to the stationary source or area source already contains terms and conditions including all terms and conditions which determine compliance required under 40 CFR 70.6(a) and (c) and which allow for the trading of emissions increases and decreases at the permitted stationary source or area source solely for the purpose of complying with a federally-enforceable emissions cap that is established in the permit independent of otherwise applicable requirements;
 2. The owner or operator has included in the application for the Title V Operating Permit proposed replicable procedures and proposed permit terms which ensure that the emissions trades are quantifiable and federally enforceable for changes to the Title V Operating Permit which qualify under a federally- enforceable emissions cap that is established in the Title V Operating Permit independent of the otherwise applicable requirements;
 3. The Director has not included in the emissions trading provision any devices for which emissions are not quantifiable or for which there are no replicable procedures to enforce emissions trades; and
 4. The written notification required above is made at least 7 days prior to the proposed change and includes a statement as to how any change in emissions will comply with the terms and conditions of the Title V Operating Permit.
- C.** For off-permit changes, the Permittee must also meet the following conditions:
1. Each off-permit change meets all applicable requirements and does not violate any existing permit term or condition;

2. The written notification required above is made contemporaneously with each off-permit change, except for changes that qualify as insignificant under the provisions of Env-A 609.04;
 3. The change is not subject to any requirements under Title IV of the CAA and the change is not a Title I modification;
 4. The Permittee keeps a record describing the changes made at the source which result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this Permit, and the emissions resulting from those changes; and
 5. The written notification required above includes a list of the pollutants emitted and any applicable requirement that would apply as a result of the change.
- D.** For section 502(b)(10) changes, the Permittee must also meet the following conditions:
1. The written notification required above is made at least 7 days prior to the proposed change; and
 2. The written notification required above includes any permit term or condition that is no longer applicable as a result of the change.
- E.** Pursuant to Env-A 612.02(f), the off-permit change and section 502(b)(10) change shall not qualify for the permit shield under Env-A 609.09.

XVII. Minor Permit Amendments

- A.** Pursuant to Env-A 612.05 prior to implementing a minor permit modification, the Permittee shall submit a written request to the Director in accordance with the requirements of Env-A 612.05(b).
- B.** The Director shall take final action on the minor permit amendment request in accordance with the provisions of Env-A 612.05(c) through (g).
- C.** Pursuant to Env-A 612.05(h), the permit shield specified in Env-A 609.09 shall not apply to minor permit amendments under Section XVII. of this Permit.
- D.** Pursuant to Env-A 612.05(a), the Permittee shall be subject to the provisions of RSA 125-C:15 if the change is made prior to the filing with the Director a request for a minor permit amendment.

XVIII. Significant Permit Amendments

- A.** Pursuant to Env-A 612.06, a change at the facility shall qualify as a significant permit amendment if it meets the criteria specified in Env-A 612.06(a)(1) through (5).

- B.** Prior to implementing the significant permit amendment, the Permittee shall submit a written request to the Director which includes all the information as referenced in Env-A 612.06(b) and (c) and shall be issued an amended Title V Operating Permit from the DES. The Permittee shall be subject to the provisions of RSA 125-C:15 if a request for a significant permit amendment is not filed with the Director and/or the change is made prior to the issuance of an amended Title V Operating Permit.
- C.** The Director shall take final action on the significant permit amendment in accordance with the Procedures specified in Env-A 612.06(d), (e) and (f).

XIX. Title V Operating Permit Suspension, Revocation or Nullification

- A.** Pursuant to RSA 125-C:13, the Director may suspend or revoke any final permit issued hereunder if, following a hearing, the Director determines that:
1. The Permittee has committed a violation of any applicable statute or state requirement found in the New Hampshire Rules Governing the Control of Air Pollution, order or permit condition in force and applicable to it; or
 2. The emissions from any device to which this Permit applies, alone or in conjunction with other sources of the same pollutants, presents an immediate danger to the public health.
- B.** The Director shall nullify any Permit, if following a hearing in accordance with RSA 541-A:30, II, a finding is made that the Permit was issued in whole or in part based upon any information proven to be intentionally false or misleading.

XX. Inspection and Entry

EPA and DES personnel shall be granted access to the facility covered by this Permit, in accordance with RSA 125-C:6, VII, for the purposes of: inspecting the proposed or permitted site; investigating a complaint; and assuring compliance with any applicable requirement or state requirement found in the NH Rules Governing the Control of Air Pollution and/or conditions of any Permit issued pursuant to Chapter Env-A 600.

XXI. Certifications

A. Compliance Certification Report

In accordance with 40 CFR 70.6(c) the Responsible Official shall certify, for the previous calendar year, that the facility is in compliance with the requirements of this permit. The report shall be submitted annually, no later than April 15th of the following year. The report shall be submitted to the DES and to the U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

In accordance with 40 CFR 70.6(c)(5), the report shall describe:

1. The terms and conditions of the Permit that are the basis of the certification;
2. The current compliance status of the source with respect to the terms and conditions of this Permit, and whether compliance was continuous or intermittent during the reporting period;
3. The methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
4. Any additional information required by the DES to determine the compliance status of the source.

B. Certification of Accuracy Statement

All documents submitted to the DES shall contain a certification of accuracy statement by the responsible official of truth, accuracy, and completeness. Such certification shall be in accordance with the requirements of 40 CFR 70.5(d) and contain the following language:

"I am authorized to make this submission on behalf of the facility for which the submission is made. Based on information and belief formed after reasonable inquiry, I certify that the statements and information in the enclosed documents are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

All reports submitted to DES (except those submitted as emission based fees as outlined in Section XXIII of this Permit) shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
ATTN: Section Supervisor, Compliance Bureau

All reports submitted to EPA shall be submitted to the following address:

Office of Environmental Stewardship
Director Air Compliance Program

United States Environmental Protection Agency
1 Congress Street
Suite 1100 (SEA)
Boston, MA 02114-2023
ATTN: Air Compliance Clerk

XXII. Enforcement

Any noncompliance with a permit condition constitutes a violation of RSA 125-C:15, and, as to the conditions in this permit which are federally enforceable, a violation of the Clean Air Act, 42 U.S.C. Section 7401 et seq., and is grounds for enforcement action, for permit termination or revocation, or for denial of an operating permit renewal application by the DES and/or EPA. Noncompliance may also be grounds for assessment of administrative, civil or criminal penalties in accordance with RSA 125-C:15 and/or the Clean Air Act. This Permit does not relieve the Permittee from the obligation to comply with any other provisions of RSA 125-C, the New Hampshire Rules Governing the Control of Air Pollution, or the Clean Air Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this Permit.

In accordance with 40 CFR 70.6 (a)(6)(ii) a Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

XXIII. Emission-Based Fee Requirements

- A. The Permittee shall pay an emission-based fee quarterly for this facility as calculated each calendar year pursuant to Env-A 705.03.
- B. The Permittee shall determine the total actual annual emissions from the facility to be included in the emission-based multiplier specified in Env-A 705.03(a) for each calendar year in accordance with the methods specified in Env-A 616.
- C. The Permittee shall calculate the annual emission-based fee for each calendar year in accordance with the procedures specified in Env-A 705.03 and the following equation:

$$FEE = E * DPT * CPI_m * ISF$$

Where:

- FEE = The annual emission-based fee for each calendar year as specified in Env-A 705.
E = The emission-based multiplier is based on the calculation of total annual emissions as specified in Env-A 705.02 and the provisions specified in Env-A 705.03(a).
DPT = The dollar per ton fee the DES has specified in Env-A 705.03(b).
CPI_m= The Consumer Price Index Multiplier as calculated in Env-A 705.03(c).

ISF = The Inventory Stabilization Factor as specified in Env-A 705.03(d).

- D.** The Permittee shall contact the DES each calendar year for the value of the Inventory Stabilization Factor.
- E.** The Permittee shall contact the DES each calendar year for the value of the Consumer Price Index Multiplier.
- F.** The Permittee shall submit, to the DES, payment of the emission-based fee and a summary of the calculations referenced in Sections XXIII.B. and C. of this Permit for each calendar year. The total emission-based fee shall be paid in four equal installments on a quarterly basis. The quarterly payments shall be made in accordance with Env-A 705.04 on the 15th day of the following months:
1. July of the year to which the fee applies (e.g., January, February, March 2009 emission-based fees are due July 15, 2009);
 2. October of the year to which the fee applies (e.g., April, May, June 2009 emission-based fees are due on October 15, 2009).
 3. January of the following year (e.g., July, August, September 2009 emission-based fees are due on January 15, 2010);
 4. April of the following year (e.g., October, November, December 2009 emission-based fees are due on April 15, 2010).

The Permittee shall pay any remaining balance of the total annual emission-based fee no later than April 15th of the following year.

The emission-based fee and summary of the calculations shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
ATTN.: Emissions Inventory

- G.** The DES shall notify the Permittee of any under payments or over payments of the annual emission-based fee in accordance with Env-A 705.05.

XXIV. Duty To Provide Information

In accordance with 40 CFR 70.6 (a)(6)(v), upon the DES's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the

Permit. Upon request, the Permittee shall furnish to the DES copies of records that the Permittee is required to retain by this Permit. The Permittee may make a claim of confidentiality as to any information submitted pursuant to this condition in accordance with Part Env-A 103 at the time such information is submitted to DES. DES shall evaluate such requests in accordance with the provisions of Part Env-A 103.

XXV. Property Rights

Pursuant to 40 CFR 70.6 (a)(6)(iv), this Permit does not convey any property rights of any sort, or any exclusive privilege.

XXVI. Severability Clause

Pursuant to 40 CFR 70.6 (a)(5), the provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

XXVII. Emergency Conditions

Pursuant to 40 CFR 70.6 (g), the Permittee shall be shielded from enforcement action brought for noncompliance with technology based³³ emission limitations specified in this Permit as a result of an emergency³⁴. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

- A. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
- B. The permitted facility was at the time being properly operated;
- C. During the period of the emergency, the Permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this Permit; and

³³ Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

³⁴ An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

- D. The Permittee submitted notice of the emergency to the DES within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

XXVIII. Permit Deviation

In accordance with 40 CFR 70.6(a)(3)(iii)(B), the Permittee shall report to the DES all instances of deviations from Permit requirements, by telephone, fax, or e-mail (pdeviations@des.state.nh.us) within 24 hours of discovery of such deviation. This report shall include the deviation itself, including those attributable to upset conditions as defined in this Permit, the probable cause of such deviations, and any corrective actions or preventative measures taken.

Within 10 days of discovery of the permit deviation, the Permittee shall submit a written report including the above information as well as the following: preventive measures taken to prevent future occurrences; date and time the permitted device returned to normal operation; specific device, process or air pollution control equipment that contributed to the permit deviation; type and quantity of excess emissions emitted to the atmosphere due to permit deviation; and an explanation of the calculation or estimation used to quantify excess emissions.

Said Permit deviation shall also be submitted in writing to the DES in the semi-annual summary report of monitoring and testing requirements due July 31st and January 31st of each calendar year. Deviations are instances where any Permit condition is violated and has not already been reported as an emergency pursuant to Section XXVII of this Permit.

Reporting a Permit deviation is not an affirmative defense for action brought for noncompliance.

Federal Acid Rain Requirements

XXIX. Phase II Acid Rain Permit Application

The attached Phase II Acid Rain Permit application, dated May 15, 2009, is hereby incorporated by reference into this permit. The Permittee shall comply with the requirements set forth in the Phase II Acid Rain Permit Application and this permit.

XXX. General Acid Rain Provisions

The Permittee shall comply with the applicable provisions of 40 CFR 72, *Permit Regulations*; 40 CFR 73, *Sulfur Dioxide Allowance System*; 40 CFR 75, *Continuous Emission Monitoring*; 40 CFR 76, *Acid Rain Nitrogen Oxides Emission Reduction Program*; and 40 CFR 77, *Excess Emissions*.

PSNH MERRIMACK STATION Facility (Source) Name (from STEP 1)

Acid Rain - Page 2

STEP 3**Permit Requirements**

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
- (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
- (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (ii) Have an Acid Rain Permit.

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
- (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
- (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

STEP 3, Cont'd.

PSNH MERRIMACK STATION

Acid Rain - Page 3

Facility (Source) Name (from STEP 1)

Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

STEP 3, Cont'd.

PSNH MERRIMACK STATION

Acid Rain - Page 4

Facility (Source) Name (from STEP 1)

Liability, Cont'd.

(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.

(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

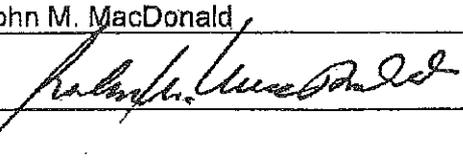
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4
Read the
certification
statement,
sign, and date.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name: John M. MacDonald	
Signature 	Date: May 15, 2009



United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

Phase II NO_x Compliance Plan

Page 1 of 2

For more information, see instructions and refer to 40 CFR 76.9

This submission is: New Revised Renewal

STEP 1 Indicate plant name, State, and ORIS code from NADB, if applicable

PSNH MERRIMACK STATION Plant Name	NH State	2364 ORIS Code
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STEP 2

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

	ID# 1	ID# 2	D#	D#	D#	D#
	Type Cyclone	Type Cyclone	Type	Type	Type	Type
(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(j) NO _x Averaging Plan (include NO _x Averaging form)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO _x Averaging (check the NO _x Averaging Plan box and include NO _x Averaging form)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PSNH MERRIMACK STATION
Plant Name (from Step 1)

STEP 2, cont'd.

ID# 1	ID# 2	D#	D#	D#	D#
Type Cyclone	Type Cyclone	Type	Type	Type	Type
(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)	<input type="checkbox"/>				
(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	<input type="checkbox"/>				
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	<input type="checkbox"/>				
(p) Repowering extension plan approved or under review	<input type="checkbox"/>				

STEP 3
Read the standard requirements and certification, enter the name of the designated representative, sign & date.

Standard Requirements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

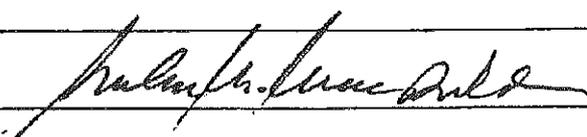
Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).

Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

John M. MacDonald Name	
Signature 	May 15, 2009 Date